



MILLTRONICS USA[®]
LET'S INVENT

ML22I Mechanical Manual
Parts Drawings and Lists

3-11-2016
Rev 1

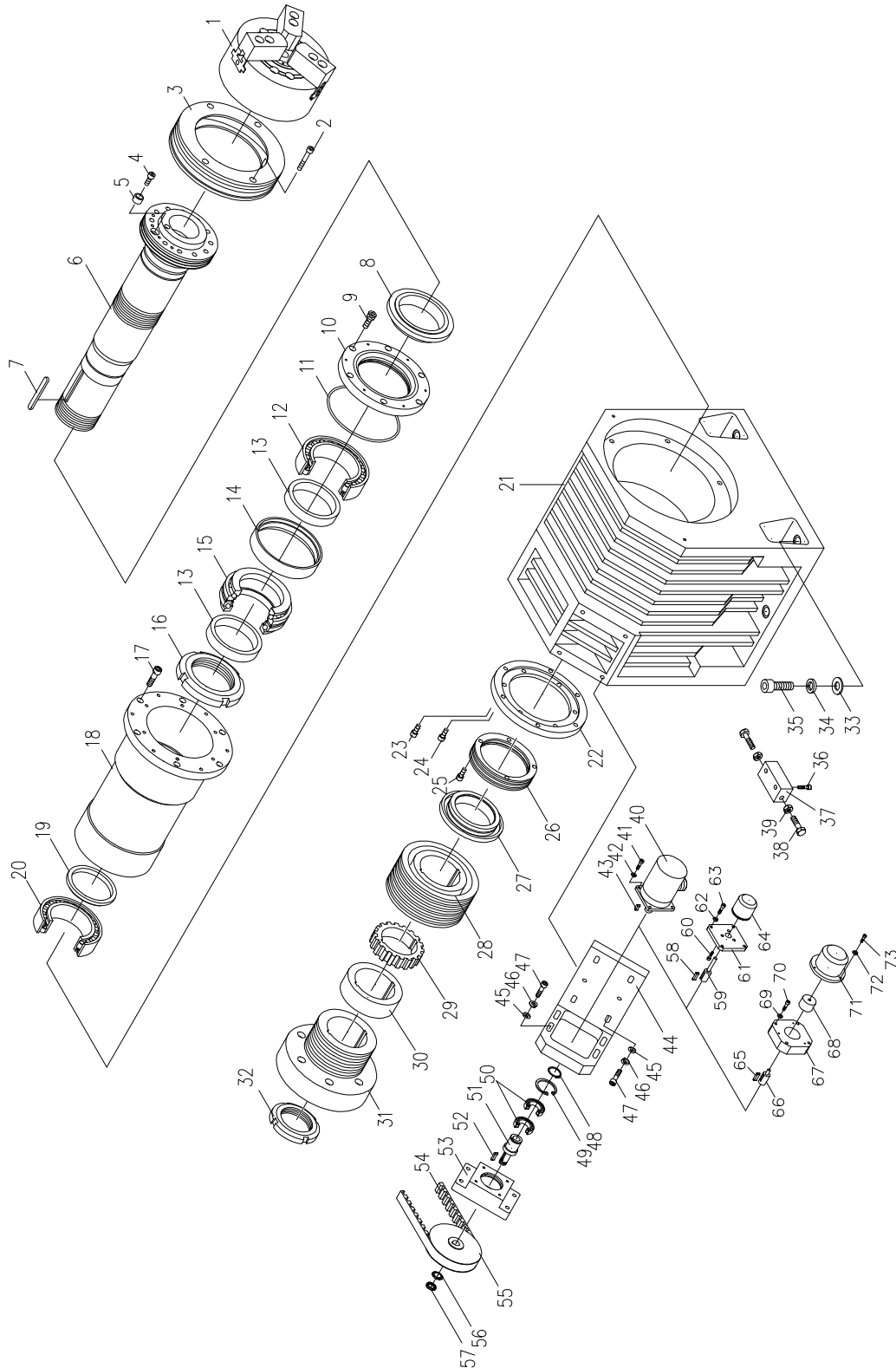
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1. Manual Discrepancy Sheet

2. Headstock Drawing A (A1-8, 3" bore)



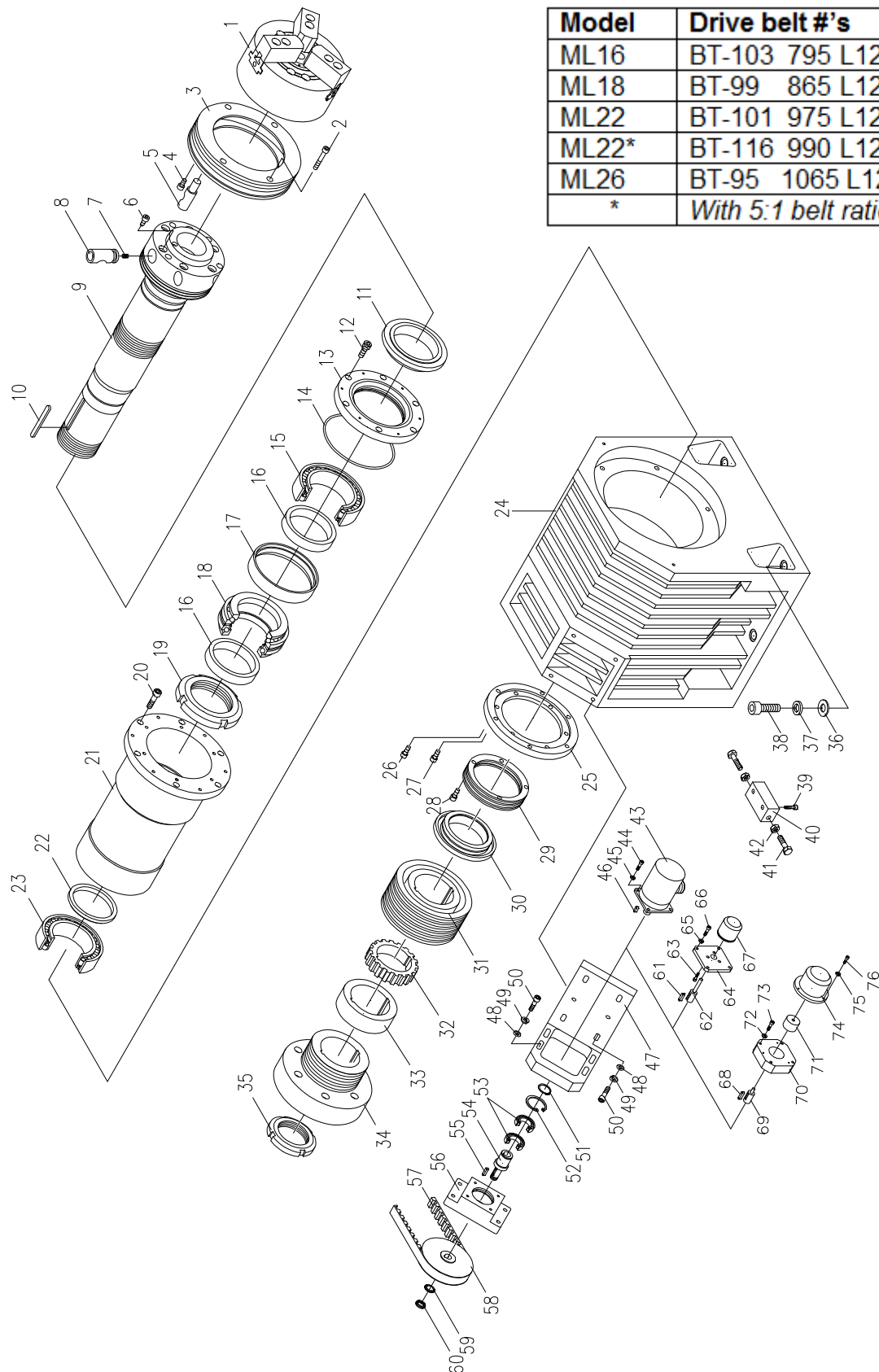
Headstock Drawing A (A1-8, 3" bore)

Item	Part no.	Description	Q'ty	Remark	Milltronics #
1		3-jaw chuck	1	SK-10 (option)	MPL-142
2	5001-A08125030	Hex. socket screw	4	M8 X P1.25 X 30L	
3	E-ARAK-01003-01	Front coupling cover	1		MLH-234
4	5001-A10150020	Hex. socket screw	1	M10XP1.5X20L	
5	E-ARAK-01015-01	Drive key	1		
6	E-ARAK-01061-01	Spindle	1	6-Groove	
7	5121-C12008160	Key (6-Groove)	2	12x8x160	
8	E-ARAK-01005-01	Seal ring	1		MPL-566
9	5001-A0812535	Hex. socket screw	6	M8XP1.25X35L	
10	E-ARAK-01004-01	Cover	1		
11		O ring	1	G-200	
12		Bearing	1	NN3024/W33	BG-146
13	E-ARAK-01006-01	Spacer	2		
14	E-ARAK-01017-01	Spacer	1		
15	E-ARAK-01018-01	Bearing	1	234424B	BG-147
16		Nut	1	YSR M120X2.0	
17	5001-A10150045	Hex. socket screw	6	M10XP1.5X45L	
18	E-ARAK-01002-01	Sleeve	1		
19	E-ARAK-01007-01	Spacer	1		
20		Bearing	1	NN3022/W33	BG-148
21	E-ARAK-00001-01	Head stock	1		
22	E-ARAK-01008-01	Rear coupling cover	1		
23	5001-A08125030	Hex. socket screw	6	M8XP1.25X30L	
24	5001-A06100020	Hex. socket screw	6	M6XP1.0X20L	
25	5001-A08125030	Hex. socket screw	6	M8XP1.25X30L	
26	E-ARAK-01009-01	Rear bearing cover	1		MPL-601
27	E-ARAK-01010-01	Seal ring	1		MPL-602
28	E-ARAK-01062-01	Pulley	1	6-Groove	
	E-ARAK-01132-01	Pulley	1	6-Groove(Enlarge)	
29	E-ARAK-01012-01	Timing belt pulley	1		MLT-188
30	E-ARAK-01013-01	Spacer	1		MPL-348
31	E-ARAK-01014-01	Pulley	1	6-Groove	PY-230
	E-ARAK-01131-01	Pulley	1	6-Groove(Enlarge)	
32		Nut	1	YSK M110X2.0	
33	5071-B00000016	Washer	6	M16	
34	5081-B00000016	Spring washer	6	M16	
35	5001-B16200060	Hex. socket screw	6	M16XP2.0X60L	
36	5001-A08125035	Hex. socket screw	2	M8XP1.25X35L	
37	E-ARAK-00002-01	Adjusting block	1		
38	5002-B10150055	Hex. bolt	2	M10XP1.5X55L	

Item	Part no.	Description	Q'ty	Remark	Milltronics #
39	5051-B00010150	Nut	2	M10	MPL-870
40		Encoder (Fagor)	1	NE-1024-2MD	See #64
41	5001-B05080015	Hex. socket screw	4	M5XP0.8X15L	
42	5081-B00000005	Spring washer	4	M5	
43	5121-C05005017	Key (Fagor)	1	5X5X17	
44	E-ARAK-03031-01	Adjusting device for encoder	1		
45	5071-B00000008	washer	8	M8	
46	5081-B00000008	Spring washer	8	M8	
47	5001-B08125045	Hex. socket screw	8	M8XP1.25X45L	
48	5141-A00000025	C snap	1	STW-25	
49	5142-A00000047	C snap	1	RTW-47	MPL-798
50	L-0401-00102	Bearing	2	6005Z	BG-06
51	E-ARAK-03004-01	Shaft	1		
52	5121-C05005020	Key	1	5X5X20L	
53	E-ARAK-03002-01	Encoder bracket	1		
54	L-0902-00002	Timing belt	1	HTD-5M-1050-15	BT-104
55	E-ARAK-03003-01	Timing belt pulley	1		
56	5087-A00000002	Washer	1	AW-02	MLA-99
57		Nut	1	AN-02	
58		Key (Milltronics)	1	5X5X17	
59	E-ARAK-03012-01	Shaft (Milltronics)	1		
60		Hex. Socket screw	3	M3XP0.5X14L	
61	E-ARAK-03011-01	Plate (Milltronics)	1		
62		Spring washer	4	M5	
63		Hex. socket screw	4	M5XP0.8X15L	
64		Encoder (Milltronics)	1		Future Life IN-1024-6DPC
65		Key (Siemens)	1	5X5X17	
66	E-ARAK-03041-01	Shaft (Siemens)	1		
67	E-ARAK-03042-01	Plate (Siemens)	1		
68		Coupling (Siemens)	1		
69		Spring washer	4	M5	
70		Hex. socket screw	4	M5XP0.8X15L	
71		Encoder (Siemens)	1	FX2001-3GB02	
72		Spring washer	3	M3	
73		Hex. socket screw	3	M3XP0.5X14L	

 45-53 in
 Assembly
 MPL-818

3. Headstock Drawing B (D1-8, 3" bore)



Model	Drive belt #'s
ML16	BT-103 795 L12
ML18	BT-99 865 L12
ML22	BT-101 975 L12
ML22*	BT-116 990 L12
ML26	BT-95 1065 L12
*	<i>With 5:1 belt ratio</i>

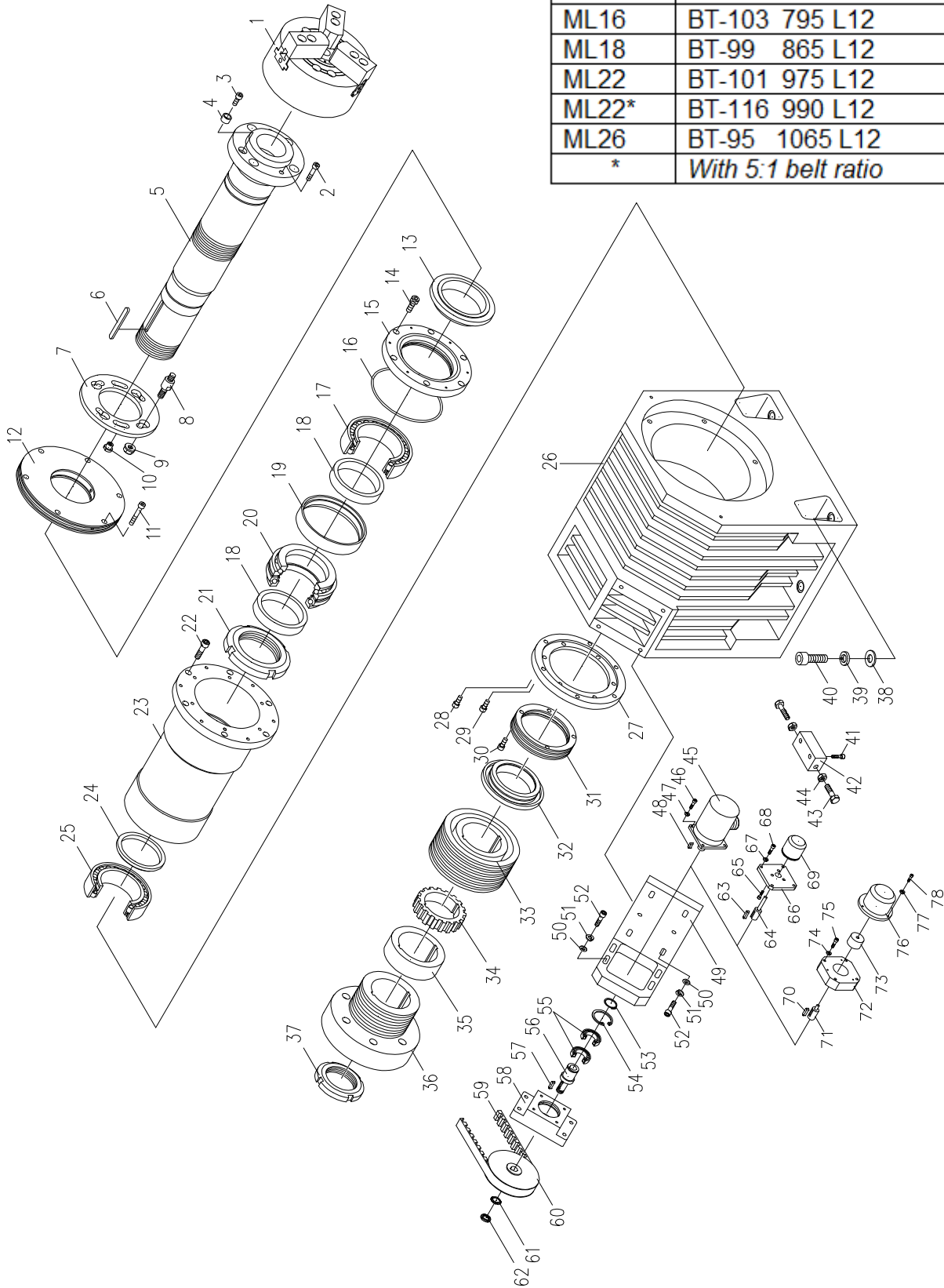
Headstock Drawing B (D1-8, 3" bore)

Item	Part no.	Description	Q'ty	Remark	Milltronics #
1		3-jaw chuck	1	SK-10 (option)	MPL-142
2	5001-A08125030	Hex. socket screw	4	M8 X P1.25 X 25L	
3	E-ARAK-01003-01	Front coupling cover	1		
4	5001-A08125016	Hex. socket screw	6	M8XP1.25X16L	
5	E-ARAK-01027-01	Studs	6		
6	E-ARAK-01028-01	Screw for cams	6		
7	E-ARAK-01029-01	Spring	6		
8	E-ARAK-01026-01	Cam	6		
9	E-ARAK-01121-01	Spindle	1	6-Groove	
10	5121-012008160	Key (6-Groove)	2	12x8x160L	
11	E-ARAK-01005-01	Seal ring	1		MPL-566
12	5001-A0812545	Hex. socket screw	6	M8XP1.25X45L	
13	E-ARAK-01004-01	Cover	1		
14		O ring	1	G-200	
15		Bearing	1	NN3024/W33	BG-146
16	E-ARAK-01006-01	Spacer	2		
17	E-ARAK-01017-01	Spacer	1		
18	E-ARAK-01018-01	Bearing	1	234424B	BG-147
19		Nut	1	YSR M120X2.0	
20	5001-A10150045	Hex. socket screw	6	M10XP1.5X45L	
21	E-ARAK-01002-01	Sleeve	1		
22	E-ARAK-01007-01	Spacer	1		
23		Bearing	1	NN3022/W33	BG-148
24	E-ARAK-00001-01	Head stock	1		
25	E-ARAK-01008-01	Rear coupling cover	1		
26	5001-A08125030	Hex. socket screw	6	M8XP1.25X30L	
27	5001-A06100020	Hex. socket screw	6	M6XP1.0X20L	
28	5001-A08125030	Hex. socket screw	6	M8XP1.25X30L	
29	E-ARAK-01009-01	Rear bearing cover	1		
30	E-ARAK-01010-01	Seal ring	1		MPL-601
31	E-ARAK-01132-01	Pulley	1	6-Groove(Enlarge)	MPL-602
32	E-ARAK-01012-01	Timing belt pulley	1		
33	E-ARAK-01013-01	Spacer	1		MLT-188
34	E-ARAK-01131-01	Pulley	1	6-Groove(Enlarge)	MPL-348
35		Nut	1	YSK M110X2.0	PY-230
36	5071-B00000016	Washer	6	M16	
37	5081-B00000016	Spring washer	6	M16	
38	5001-B16200060	Hex. socket screw	6	M16XP2.0X60L	
39	5001-A08125035	Hex. socket screw	2	M8XP1.25X35L	
40	E-ARAK-00002-01	Adjusting block	1		
41	5002-B10150055	Hex. bolt	2	M10XP1.5X55L	

Item	Part no.	Description	Q'ty	Remark	Milltronics #	
42	5051-B00010150	Nut	2	M10	MPL-870	
43		Encoder (Fagor)	1	NE-1024-2MD	See #67	
44	5001-B05080015	Hex. socket screw	4	M5XP0.8X15L		
45	5081-B00000005	Spring washer	4	M5		
46	5121-C05005017	Key (Fagor)	1	5X5X17		
47	E-ARAK-03031-01	Adjusting device for encoder	1		47-56 in Assembly MPL-818	
48	5071-B00000008	washer	8	M8		
49	5081-B00000008	Spring washer	8	M8		
50	5001-B08125045	Hex. socket screw	8	M8XP1.25X45L		
51	5141-A00000025	C snap	1	STW-25		
52	5142-A00000047	C snap	1	RTW-47		MPL-798
53	L-0401-00102	Bearing	2	6005Z		BG-06
54	E-ARAK-03004-01	Shaft	1			
55	5121-C05005020	Key	1	5X5X20L		
56	E-ARAK-03002-01	Encoder bracket	1			
57	L-0902-00002	Timing belt	1	HTD-5M-1050-15	BT-104	
58	E-ARAK-03003-01	Timing belt pulley	1			
59	5087-A00000002	Washer	1	AW-02	MLA-99	
60		Nut	1	AN-02		
61		Key (Milltronics)	1	5X5X17		
62	E-ARAK-03012-01	Shaft (Milltronics)	1			
63		Hex. Socket screw	3	M3XP0.5X14L		
64	E-ARAK-03011-01	Plate (Milltronics)	1			
65		Spring washer	4	M5		
66		Hex. socket screw	4	M5XP0.8X15L		
67		Encoder (Milltronics)	1		Future Life IN-1024-6DPC	
68		Key (Siemens)	1	5X5X17		
69	E-ARAK-03041-01	Shaft (Siemens)	1			
70	E-ARAK-03042-01	Plate (Siemens)	1			
71		Coupling (Siemens)	1			
72		Spring washer	4	M5		
73		Hex. socket screw	4	M5XP0.8X15L		
74		Encoder (Siemens)	1	FX2001-3GB02		
75		Spring washer	3	M3		
76		Hex. socket screw	3	M3XP0.5X14L		

4. Headstock Drawing C (DIN55027, 3" bore)

Model	Drive belt #'s
ML16	BT-103 795 L12
ML18	BT-99 865 L12
ML22	BT-101 975 L12
ML22*	BT-116 990 L12
ML26	BT-95 1065 L12
*	With 5:1 belt ratio



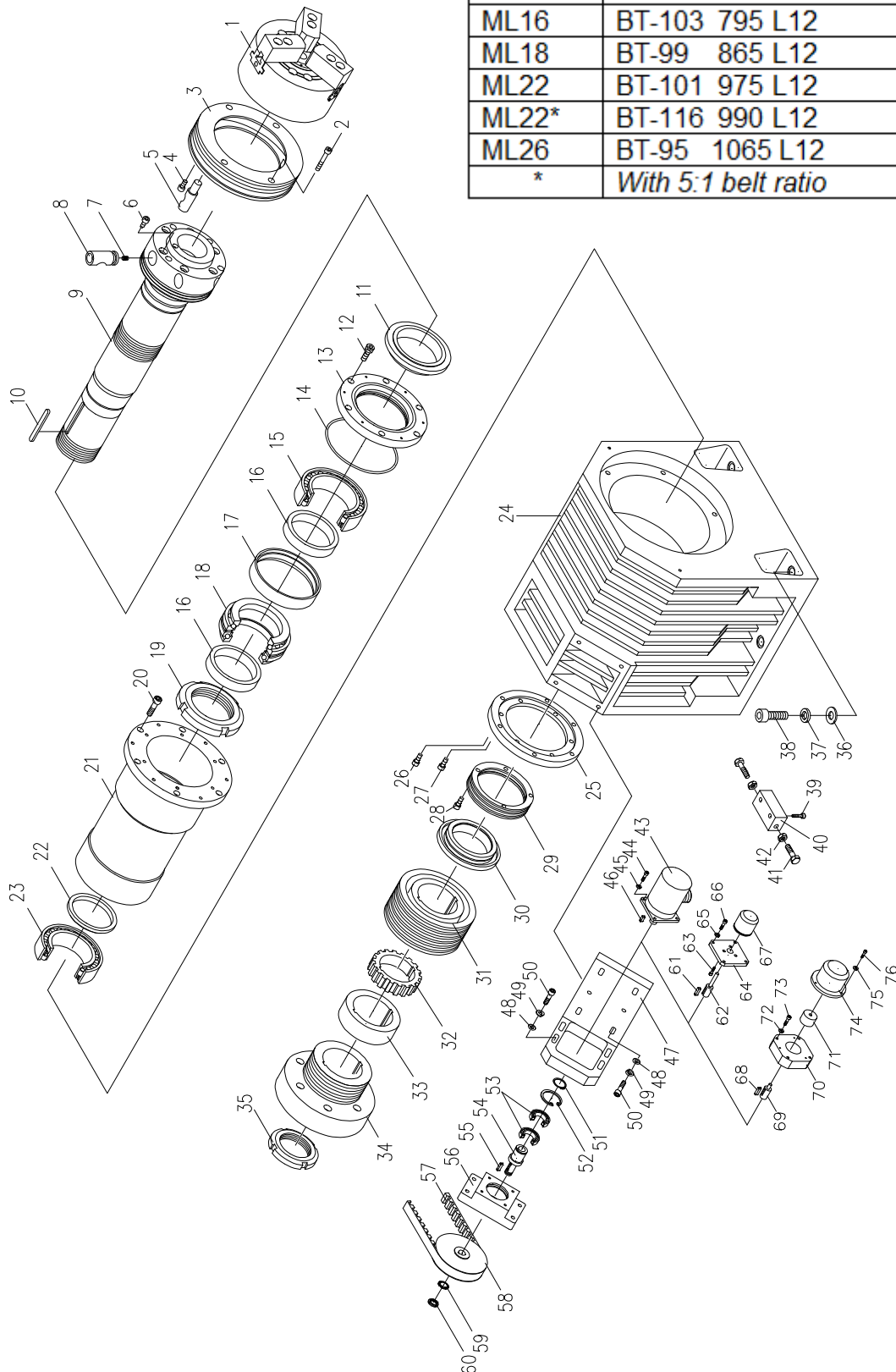
Headstock Drawing C (DIN55027, 3" bore)

Item	Part no.	Description	Q'ty	Remark	Milltronics #
1		3-jaw chuck	1	SK-10 (option)	MPL-142
2	5001-A10150035	Hex. socket screw	2	M10 X P1.5 X 35L	
3	5001-A08125020	Hex. socket screw	1	M8XP1.25X20L	
4	E-ARAK-01073-01	Drive key	1		
5	E-ARAK-01131-01	Spindle	1	6-Groove	
6	5121-C12008160	Key (6-Groove)	2	12x8x160L	
7	E-ARAK-01074-01	Bayonet disc	1		
8	E-ARAK-01077-01	Studs	4		
9	E-ARAK-01075-01	Nut with collars	4		
10	E-ARAK-01076-01	Thrust socket	2		
11	5001-A08125030	Hex. socket screw	4	M8XP1.25X30L	
12	E-ARAK-01072-01	Front coupling cover	1		
13	E-ARAK-01005-01	Seal ring	1		
14	5001-A0812535	Hex. socket screw	6	M8XP1.25X35L	
15	E-ARAK-01004-01	Cover	1		
16		O ring	1	G-200	
17		Bearing	1	NN3024/W33	BG-146
18	E-ARAK-01006-01	Spacer	2		
19	E-ARAK-01017-01	Spacer	1		
20	E-ARAK-01018-01	Bearing	1	234424B	BG-147
21		Nut	1	YSR M120X2.0	
22	5001-A10150045	Hex. socket screw	6	M10XP1.5X45L	
23	E-ARAK-01002-01	Sleeve	1		
24	E-ARAK-01007-01	Spacer	1		
25		Bearing	1	NN3022/W33	BG-148
26	E-ARAK-00001-01	Head stock	1		
27	E-ARAK-01008-01	Rear coupling cover	1		
28	5001-A08125030	Hex. socket screw	6	M8XP1.25X30L	
29	5001-A06100020	Hex. socket screw	6	M6XP1.0X20L	
30	5001-A08125030	Hex. socket screw	6	M8XP1.25X30L	
31	E-ARAK-01009-01	Rear bearing cover	1		
32	E-ARAK-01010-01	Seal ring	1		
33	E-ARAK-01132-01	Pulley	1	6-Groove(Enlarge)	
34	E-ARAK-01012-01	Timing belt pulley	1		
35	E-ARAK-01013-01	Spacer	1		
36	E-ARAK-01131-01	Pulley	1	6-Groove(Enlarge)	
37		Nut	1	YSK M110X2.0	
38	5071-B00000016	Washer	6	M16	
39	5081-B00000016	Spring washer	6	M16	
40	5001-B16200060	Hex. socket screw	6	M16XP2.0X60L	
41	5001-A08125035	Hex. socket screw	2	M8XP1.25X35L	

Item	Part no.	Description	Q'ty	Remark	Milltronics #
42	E-ARAK-00002-01	Adjusting block	1		
43	5002-B10150055	Hex. bolt	2	M10XP1.5X55L	
44	5051-B00010150	Nut	2	M10	
45		Encoder (Fagor)	1	NE-1024-2MD	See #69
46	5001-B05080015	Hex. socket screw	4	M5XP0.8X15L	
47	5081-B00000005	Spring washer	4	M5	
48	5121-C05005017	Key (Fagor)	1	5X5X17	
49	E-ARAK-03031-01	Adjusting device for encoder	1		
50	5071-B00000008	washer	8	M8	
51	5081-B00000008	Spring washer	8	M8	
52	5001-B08125045	Hex. socket screw	8	M8XP1.25X45L	
53	5141-A00000025	C snap	1	STW-25	
54	5142-A00000047	C snap	1	RTW-47	
55	L-0401-00102	Bearing	2	6005Z	BG-06
56	E-ARAK-03004-01	Shaft	1		
57	5121-C05005020	Key	1	5X5X20L	
58	E-ARAK-03002-01	Encoder bracket	1		
59	L-0902-00002	Timing belt	1	HTD-5M-1050-15	BT-104
60	E-ARAK-03003-01	Timing belt pulley	1		
61	5087-A00000002	Washer	1	AW-02	MLA-99
62		Nut	1	AN-02	
63		Key (Milltronics)	1	5X5X17	
64	E-ARAK-03012-01	Shaft (Milltronics)	1		
65		Hex. Socket screw	3	M3XP0.5X14L	
66	E-ARAK-03011-01	Plate (Milltronics)	1		
67		Spring washer	4	M5	
68		Hex. socket screw	4	M5XP0.8X15L	
69		Encoder (Milltronics)	1		Future Life IN-1024-6DPC
70		Key (Siemens)	1	5X5X17	
71	E-ARAK-03041-01	Shaft (Siemens)	1		
72	E-ARAK-03042-01	Plate (Siemens)	1		
73		Coupling (Siemens)	1		
74		Spring washer	4	M5	
75		Hex. socket screw	4	M5XP0.8X15L	
76		Encoder (Siemens)	1	FX2001-3GB02	
77		Spring washer	3	M3	
78		Hex. socket screw	3	M3XP0.5X14L	

5. Headstock Drawing D (D1-8, 4" bore)

Model	Drive belt #'s
ML16	BT-103 795 L12
ML18	BT-99 865 L12
ML22	BT-101 975 L12
ML22*	BT-116 990 L12
ML26	BT-95 1065 L12
*	With 5:1 belt ratio

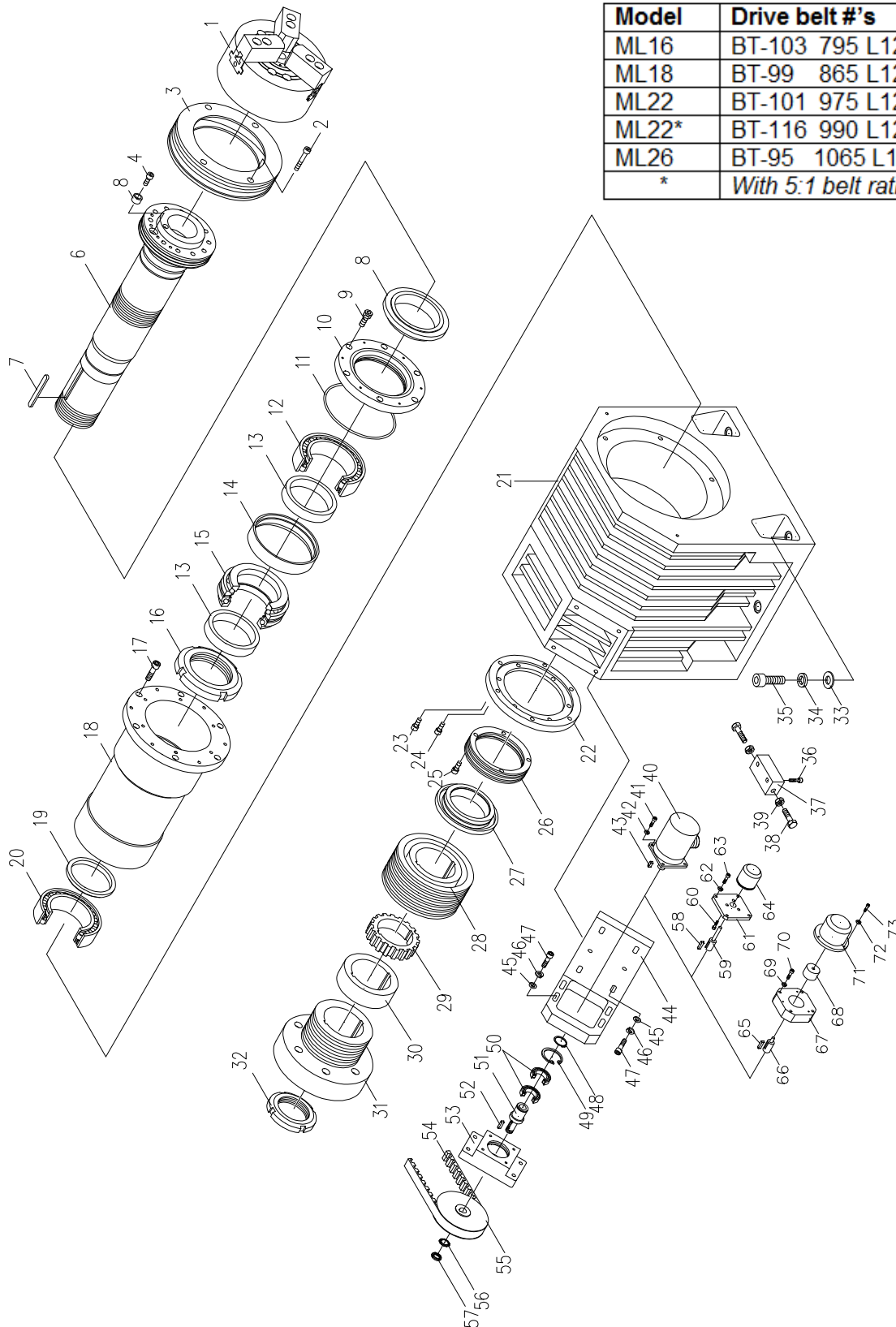


Headstock D (D1-8, 4" bore)

Item	Part no.	Description	Q'ty	Remark	Milltronics #
1		3-jaw chuck	1	SK-10 (option)	MPL-142
2	5001-A08125030	Hex. socket screw	6	M8 X P1.25 X 30L	
3	E-ARAK-01143-01	Front coupling cover	1		
4	5001-A08125016	Hex. socket screw	6	M8XP1.25X16L	
5	E-ARAK-01027-01	Studs	6		
6	E-ARAK-01147-01	Screw for cams	6		
7	E-ARAK-01029-01	Spring	6		
8	E-ARAK-01146-01	Cams	6		
9	E-ARAK-01141-01	Spindle	1	6-Groove	
10	5121-C16010160	Key (6-Groove)	2	16x10x160L	
11	E-ARAK-01145-01	Seal ring	1		MPL-566?
12	5001-A10150045	Hex. socket screw	6	M10XP1.5X45L	
13	E-ARAK-01144-01	Cover	1		
14		O ring	1	G-260	
15		Bearing	1	NN3032/W33	BG-178
16	E-ARAK-01036-01	Spacer	2		
17	E-ARAK-01047-01	Spacer	1		
18	E-ARAK-01048-01	Bearing	1	234432B	BG-179 or BG-187
19		Nut	1	YSR M160X3.0	
20	5001-A12175065	Hex. socket screw	6	M12XP1.75X65L	
21	E-ARAK-01032-01	Sleeve	1		
22	E-ARAK-01037-01	Spacer	1		
23		Bearing	1	NN3028/W33	BG-180
24	E-ARAK-00011-01	Head stock	1		
25	E-ARAK-01038-01	Rear coupling cover	1		
26	5001-A08125030	Hex. socket screw	6	M8XP1.25X30L	
27	5001-A06100020	Hex. socket screw	6	M6XP1.0X20L	
28	5001-A08125030	Hex. socket screw	6	M8XP1.25X30L	
29	E-ARAK-01039-01	Rear bearing cover	1		
30	E-ARAK-01040-01	Seal ring	1		
31	E-ARAK-01172-01	Pulley	1	6-Groove(Enlarge)	
32	E-ARAK-01042-01	Timing belt pulley	1		
33	E-ARAK-01043-01	Spacer	1		
34	E-ARAK-01171-01	Pulley	1	6-Groove(Enlarge)	
35		Nut	1	YSK M140X2.0	
36	5071-B00000016	Washer	6	M16	
37	5081-B00000016	Spring washer	6	M16	
38	5001-B16200060	Hex. socket screw	6	M16XP2.0X60L	
39	5001-A08125035	Hex. socket screw	2	M8XP1.25X35L	
40	E-ARAK-00002-01	Adjusting block	1		
41	5002-B10150055	Hex. bolt	2	M10XP1.5X55L	

Item	Part no.	Description	Q'ty	Remark	Milltronics #
42	5051-B00010150	Nut	2	M10	MPL-870
43		Encoder (Fagor)	1	NE-1024-2MD	
44	5001-B05080015	Hex. socket screw	4	M5XP0.8X15L	
45	5081-B00000005	Spring washer	4	M5	
46	5121-C05005017	Key (Fagor)	1	5X5X17	
47	E-ARAK-03031-01	Adjusting device for encoder	1		
48	5071-B00000008	washer	8	M8	
49	5081-B00000008	Spring washer	8	M8	
50	5001-B08125045	Hex. socket screw	8	M8XP1.25X45L	
51	5141-A00000025	C snap	1	STW-25	
52	5142-A00000047	C snap	1	RTW-47	MPL-798
53	L-0401-00102	Bearing	2	6005Z	BG-06
54	E-ARAK-03004-01	Shaft	1		
55	5121-C05005020	Key	1	5X5X20L	
56	E-ARAK-03002-01	Encoder bracket	1		
57	L-0902-00003	Timing belt	1	HTD-5M-1135-15	BT-154
58	E-ARAK-03023-01	Timing belt pulley	1		
59	5087-A00000002	Washer	1	AW-02	MLA-99
60		Nut	1	AN-02	
61		Key (Milltronics)	1	5X5X17	
62	E-ARAK-03012-01	Shaft (Milltronics)	1		
63		Hex. Socket screw	3	M3XP0.5X14L	
64	E-ARAK-03011-01	Plate (Milltronics)	1		
65		Spring washer	4	M5	
66		Hex. socket screw	4	M5XP0.8X15L	
67		Encoder (Milltronics)	1		Future Life IN-1024-6DPC
68		Key (Siemens)	1	5X5X17	
69	E-ARAK-03041-01	Shaft (Siemens)	1		
70	E-ARAK-03042-01	Plate (Siemens)	1		
71		Coupling (Siemens)	1		
72		Spring washer	4	M5	
73		Hex. socket screw	4	M5XP0.8X15L	
74		Encoder (Siemens)	1	FX2001-3GB02	
75		Spring washer	3	M3	
76		Hex. socket screw	3	M3XP0.5X14L	

6. Headstock Drawing E (A1-11, 4" bore)



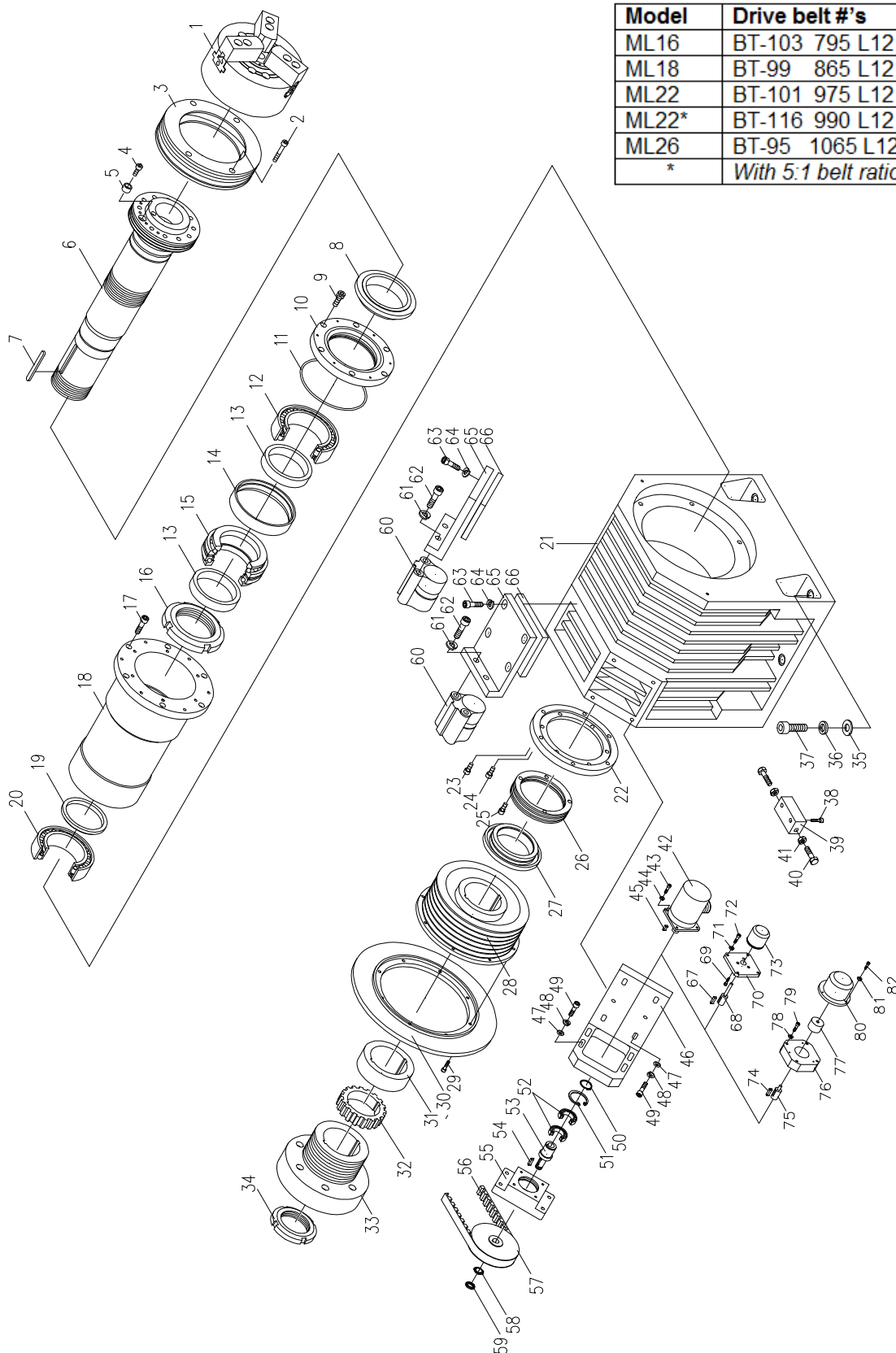
Model	Drive belt #'s
ML16	BT-103 795 L12
ML18	BT-99 865 L12
ML22	BT-101 975 L12
ML22*	BT-116 990 L12
ML26	BT-95 1065 L12
*	With 5:1 belt ratio

Headstock E (A1-11, 4" bore)

Item	Part no.	Description	Q'ty	Remark	Milltronics #
1		3-jaw chuck	1	SK-10 (option)	MPL-142
2	5001-A08125030	Hex. socket screw	6	M8 X P1.25 X 30L	
3	E-ARAK-01033-01	Front coupling cover	1		
4	5001-A10150025	Hex. socket screw	1	M10XP1.5X25L	
5	E-ARAK-01045-01	Drive key	1		
6	E-ARAK-01111-01	Spindle	1	6-Groove	
7	5121-C16010160	Key (6-Groove)	2	16x10x160L	
8	E-ARAK-01035-01	Seal ring	1		
9	5001-A10150045	Hex. socket screw	6	M10XP1.5X45L	
10	E-ARAK-01034-01	Cover	1		
11		O ring	1	G-260	
12		Bearing	1	NN3032/W33	BG-178
13	E-ARAK-01036-01	Spacer	2		
14	E-ARAK-01047-01	Spacer	1		
15	E-ARAK-01048-01	Bearing	1	234432B	BG-179 or BG-187
16		Nut	1	YSR M160X3.0	
17	5001-A12175065	Hex. socket screw	6	M12XP1.75X65L	
18	E-ARAK-01032-01	Sleeve	1		
19	E-ARAK-01037-01	Spacer	1		
20		Bearing	1	NN3028/W33	BG-180
21	E-ARAK-00011-01	Head stock	1		
22	E-ARAK-01038-01	Rear coupling cover	1		
23	5001-A08125030	Hex. socket screw	6	M8XP1.25X30L	
24	5001-A06100020	Hex. socket screw	6	M6XP1.0X20L	
25	5001-A08125030	Hex. socket screw	6	M8XP1.25X30L	
26	E-ARAK-01039-01	Rear bearing cover	1		
27	E-ARAK-01040-01	Seal ring	1		
28	E-ARAK-01172-01	Pulley	1	6-Groove(Enlarge)	
29	E-ARAK-01042-01	Timing belt pulley	1		
30	E-ARAK-01043-01	Spacer	1		
31	E-ARAK-01171-01	Pulley	1	6-Groove(Enlarge)	
32		Nut	1	YSK M140X2.0	
33	5071-B00000016	Washer	6	M16	
34	5081-B00000016	Spring washer	6	M16	
35	5001-B16200060	Hex. socket screw	6	M16XP2.0X60L	
36	5001-A08125035	Hex. socket screw	2	M8XP1.25X35L	
37	E-ARAK-00002-01	Adjusting block	1		
38	5002-B10150055	Hex. bolt	2	M10XP1.5X55L	
39	5051-B00010150	Nut	2	M10	
40		Encoder (Fagor)	1	NE-1024-2MD	
41	5001-B05080015	Hex. socket screw	4	M5XP0.8X15L	

Item	Part no.	Description	Q'ty	Remark	Milltronics #
42	5081-B00000005	Spring washer	4	M5	
43	5121-C05005017	Key (Fagor)	1	5X5X17	
44	E-ARAK-03031-01	Adjusting device for encoder	1		
45	5071-B00000008	washer	8	M8	
46	5081-B00000008	Spring washer	8	M8	
47	5001-B08125045	Hex. socket screw	8	M8XP1.25X45L	
48	5141-A00000025	C snap	1	STW-25	
49	5142-A00000047	C snap	1	RTW-47	MPL-798
50	L-0401-00102	Bearing	2	6005Z	BG-06
51	E-ARAK-03004-01	Shaft	1		
52	5121-C05005020	Key	1	5X5X20L	
53	E-ARAK-03002-01	Encoder bracket	1		
54	L-0902-00003	Timing belt	1	HTD-5M-1135-15	BT-154
55	E-ARAK-03023-01	Timing belt pulley	1		
56	5087-A00000002	Washer	1	AW-02	MLA-99
57		Nut	1	AN-02	
58		Key (Milltronics)	1	5X5X17	
59	E-ARAK-03012-01	Shaft (Milltronics)	1		
60		Hex. Socket screw	3	M3XP0.5X14L	
61	E-ARAK-03011-01	Plate (Milltronics)	1		
62		Spring washer	4	M5	
63		Hex. socket screw	4	M5XP0.8X15L	
64		Encoder (Milltronics)	1		Future Life IN-1024-6DPC
65		Key (Siemens)	1	5X5X17	
66	E-ARAK-03041-01	Shaft (Siemens)	1		
67	E-ARAK-03042-01	Plate (Siemens)	1		
68		Coupling (Siemens)	1		
69		Spring washer	4	M5	
70		Hex. socket screw	4	M5XP0.8X15L	
71		Encoder (Siemens)	1	FX2001-3GB02	
72		Spring washer	3	M3	
73		Hex. socket screw	3	M3XP0.5X14L	

7. C-Axis (Headstock A1-8, D1-8, DIN55027, 3" bore)



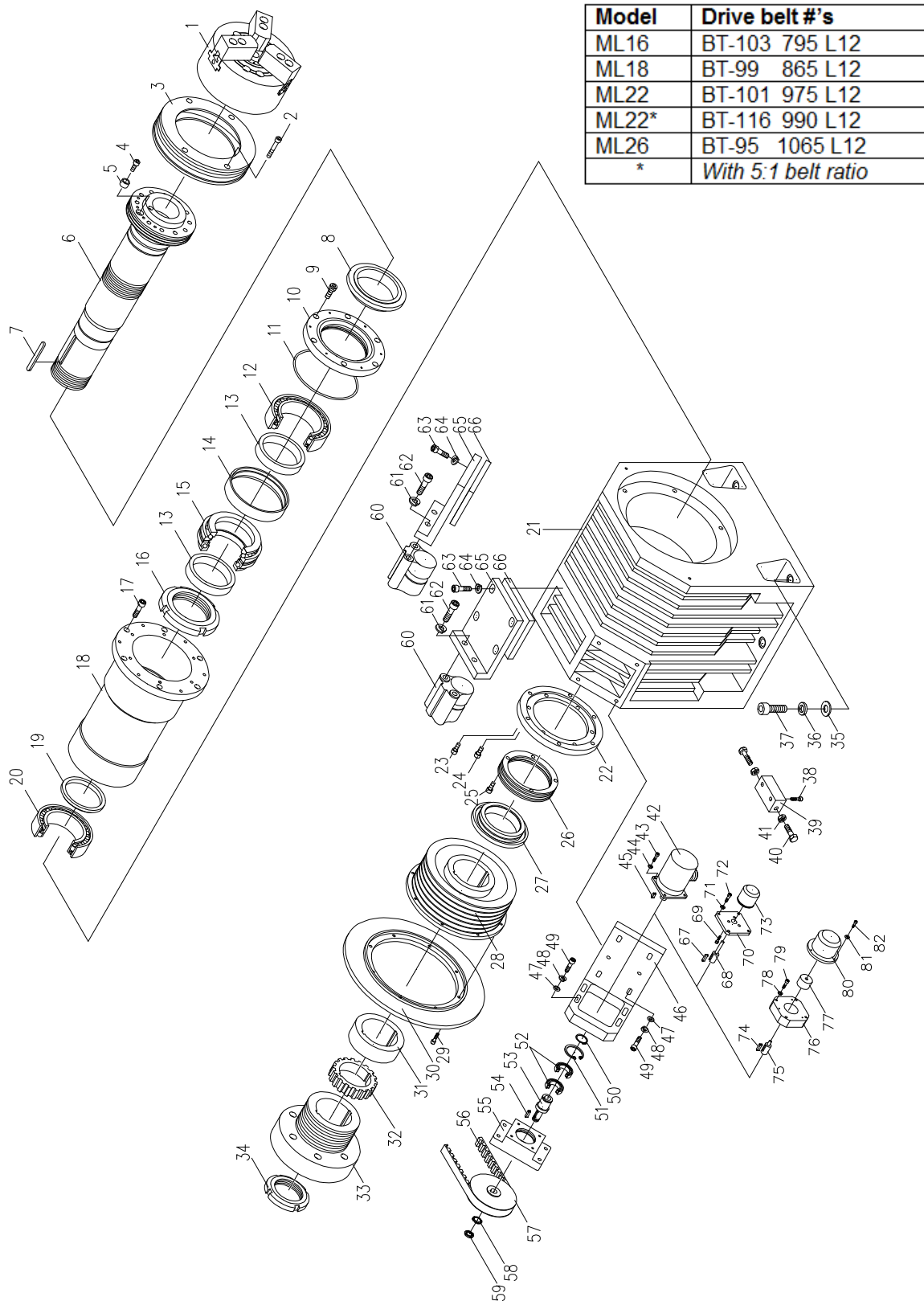
Model	Drive belt #'s
ML16	BT-103 795 L12
ML18	BT-99 865 L12
ML22	BT-101 975 L12
ML22*	BT-116 990 L12
ML26	BT-95 1065 L12
*	<i>With 5:1 belt ratio</i>

C-Axis (Headstock A1-8, D1-8, DIN55207, 3" bore)

Item	Part no.	Description	Q'ty	Remark	Milltronics #
1		3-jaw chuck	1	SK-10 (option)	MPL-142
2	5001-A08125030	Hex. socket screw	4	M8 X P1.25 X 30L	
3	E-ARAK-01003-01	Front coupling cover	1		
4	5001-A10150020	Hex. socket screw	2	M10XP1.5X20L	
5	E-ARAK-01015-01	Drive key	1		
6	E-ARAK-01061-01	Spindle (A1-8)	1	6-Groove	
	E-ARAK-01121-01	Spindle (D1-8)	1	6-Groove	
	E-ARAK-01131-01	Spindle (DIN55207)	1	6-Groove	
7	5121-C12008160	Key (6-Groove)	2	12x8x160L	
8	E-ARAK-01005-01	Seal ring	1		
9	5001-A0812535	Hex. socket screw	6	M8XP1.25X35L	
10	E-ARAK-01004-01	Cover	1		
11		O ring	1	G-200	
12		Bearing	1	NN3024K/W33	BG-146
13	E-ARAK-01006-01	Spacer	2		
14	E-ARAK-01017-01	Spacer	1		
15	E-ARAK-01018-01	Bearing	1	234424B	BG-147
16		Nut	1	YSR M120X2.0	
17	5001-A10150045	Hex. socket screw	6	M10XP1.5X45L	
18	E-ARAK-01002-01	Sleeve	1		
19	E-ARAK-01007-01	Spacer	1		
20		Bearing	1	NN3022K/W33	---
21	E-ARAK-00001-01	Head stock	1		
22	E-ARAK-01008-01	Rear coupling cover	1		
23	5001-A08125030	Hex. socket screw	6	M8XP1.25X30L	
24	5001-A06100020	Hex. socket screw	6	M6XP1.0X20L	
25	5001-A08125030	Hex. socket screw	6	M8XP1.25X30L	
26	E-ARAK-01009-01	Rear bearing cover	1		
27	E-ARAK-01010-01	Seal ring	1		
28	E-ARAK-01062-01	Pulley	1	6-Groove	
	E-ARAK-01132-01	Pulley	1	6-Groove(Enlarge)	
29	5001-B06100015	Hex. socket screw	8	M6XP1.0X15L	
30	E-ARAK-55031-01	Disc	1	6-Groove	
31	E-ARAK-01013-01	Spacer	1		
32	E-ARAK-01012-01	Timing belt pulley	1		
33	E-ARAK-01014-01	Pulley	1	6-Groove	
	E-ARAK-01131-01	Pulley	1	6-Groove(Enlarge)	
34		Nut	1	YSK M110X2.0	
35	5071-B00000016	Washer	6	M16	
36	5081-B00000016	Spring washer	6	M16	
37	5001-B16200060	Hex. socket screw	6	M16XP2.0X60L	
38	5001-A08125035	Hex. socket screw	2	M8XP1.25X35L	
39	E-ARAK-00002-01	Adjusting block	1		
40	5002-B10150055	Hex. bolt	2	M10XP1.5X55L	
41	5051-B00010150	Nut	2	M10	
42		Encoder (Fanuc)	1		
43	5001-B05080015	Hex. socket screw	4	M5XP0.8X15L	
44	5081-B00000005	Spring washer	4	M5	

Item	Part no.	Description	Q'ty	Remark	Milltronics #
45	5121-C05005017	Key (Fanuc)	1	5X5X17	
46	E-ARAK-03031-01	Adjusting device for encoder	1		
47	5071-B00000008	washer	8	M8	
48	5081-B00000008	Spring washer	8	M8	
49	5001-B08125045	Hex. socket screw	8	M8XP1.25X45L	
50	5141-A00000025	C snap	1	STW-25	
51	5142-A00000047	C snap	1	RTW-47	
52	L-0401-00102	Bearing	2	6005Z	BG-06
53	E-ARAK-55005-01	Shaft	1		
54	5121-C05005020	Key	1	5X5X20L	
55	E-ARAK-03002-01	Encoder bracket	1		
56	L-0902-00002	Timing belt	1	HTD-5M-1050-15	BT-104
57	E-ARAK-03003-01	Timing belt pulley	1		
58	5087-A00000002	Washer	1	AW-02	MLA-99
59		Nut		AN-02	
60	E-ARAK-55008-01	Disc brakes	2		
61	5081-B00000012	Spring washer	4	M12	
62	5001-B12175040	Hex. socket screw	4	M12XP1.75X40L	
63	5001-B10150035	Hex. socket screw	8	M10XP1.5X35L	
64	5081-B00000010	Spring washer	8	M10	
65	E-ARAK-55006-01	Bracket	2		
66	E-ARAK-55033-01	Spacer	2		
67		Key (Milltronics)	1	5X5X17	
68	E-ARAK-03012-01	Shaft (Milltronics)	1		
69		Hex. Socket screw	3	M3XP0.5X14L	
70	E-ARAK-03011-01	Plate (Milltronics)	1		
71		Spring washer	4	M5	
72		Hex. socket screw	4	M5XP0.8X15L	
73		Encoder (Milltronics)	1	C-Axis	EO-42
74		Key (Fagor/Siemens)	1	5X5X17	
75	E-ARAK-03041-01	Shaft (Fagor/Siemens)	1		
76	E-ARAK-03042-01	Plate (Fagor/Siemens)	1		
77		Coupling (Fagor/Siemens)	1		
78		Spring washer	4	M5	
79		Hex. socket screw	4	M5XP0.8X15L	
80		Encoder (Fagor)	1	NE-1024-2MD	
		Encoder (Siemens)	1	FX2001-3GB02	
81		Spring washer	3	M3	
82		Hex. socket screw	3	M3XP0.5X14L	

8. C-Axis (Headstock A1-11, D1-8, 4" bore)

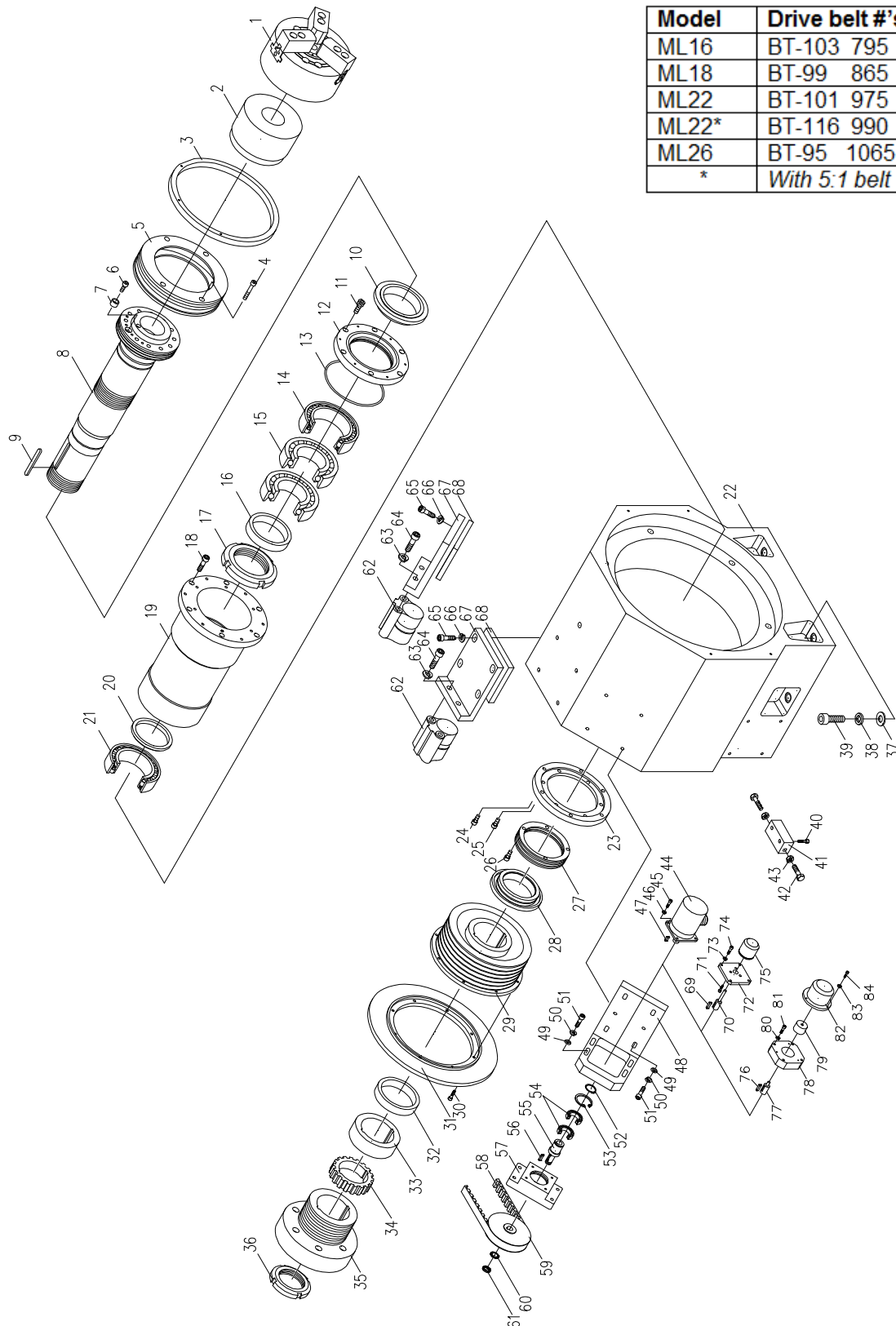


C-Axis (Headstock A1-11, D1-8, 4" bore)

Item	Part no.	Description	Q'ty	Remark	Milltronics #
1		3-jaw chuck	1	SK-10 (option)	MPL-142
2	5001-A08125030	Hex. socket screw	6	M8 X P1.25 X 30L	
3	E-ARAK-01033-01	Front coupling cover	1		
4	5001-A10150025	Hex. socket screw	2	M10XP1.5X25L	
5	E-ARAK-01045-01	Drive key	1		
6	E-ARAK-01111-01	Spindle (A1-11)	1	6-Groove	
	E-ARAK-01141-01	Spindle (D1-8)	1	6-Groove	
7	5121-C16010160	Key (6-Groove)	2	16x10x160L	
8	E-ARAK-01035-01	Seal ring	1		
9	5001-A10150045	Hex. socket screw	6	M10XP1.5X45L	
10	E-ARAK-01034-01	Cover	1		
11		O ring	1	G-260	
12		Bearing	1	NN3032K/W33	BG-185
13	E-ARAK-01036-01	Spacer	2		
14	E-ARAK-01047-01	Spacer	1		
15	E-ARAK-01048-01	Bearing	1	234432B	BG-179 or BG-187
16		Nut	1	YSR M160X3.0	
17	5001-A12175065	Hex. socket screw	6	M2XP1.75X65L	
18	E-ARAK-01032-01	Sleeve	1		
19	E-ARAK-01037-01	Spacer	1		
20		Bearing	1	NN3028K/W33	BG-186
21	E-ARAK-00011-01	Head stock	1		
22	E-ARAK-01038-01	Rear coupling cover	1		
23	5001-A08125030	Hex. socket screw	6	M8XP1.25X30L	
24	5001-A06100020	Hex. socket screw	6	M6XP1.0X20L	
25	5001-A08125030	Hex. socket screw	6	M8XP1.25X30L	
26	E-ARAK-01039-01	Rear bearing cover	1		
27	E-ARAK-01040-01	Seal ring	1		
28	E-ARAK-01172-01	Pulley	1	6-Groove(Enlarge)	
29	5001-B06100015	Hex. socket screw	8	M6XP1.0X15L	
30	E-ARAK-55031-01	Disc	1	6-Groove	
31	E-ARAK-01043-01	Spacer	1		
32	E-ARAK-01042-01	Timing belt pulley	1		
33	E-ARAK-01171-01	Pulley	1	6-Groove(Enlarge)	
34		Nut	1	YSK M140X2.0	
35	5071-B00000016	Washer	6	M16	
36	5081-B00000016	Spring washer	6	M16	
37	5001-B16200060	Hex. socket screw	6	M16XP2.0X60L	
38	5001-A08125035	Hex. socket screw	2	M8XP1.25X35L	
39	E-ARAK-00002-01	Adjusting block	1		
40	5002-B10150055	Hex. bolt	2	M10XP1.5X55L	
41	5051-B00010150	Nut	2	M10	
42		Encoder (Fanuc)	1		

Item	Part no.	Description	Q'ty	Remark	Milltronics #
43	5001-B05080015	Hex. socket screw	4	M5XP0.8X15L	
44	5081-B00000005	Spring washer	4	M5	
45	5121-C05005017	Key (Fanuc)	1	5X5X17	
46	E-ARAK-03031-01	Adjusting device for encoder	1		
47	5071-B00000008	washer	8	M8	
48	5081-B00000008	Spring washer	8	M8	
49	5001-B08125045	Hex. socket screw	8	M8XP1.25X45L	
50	5141-A00000025	C snap	1	STW-25	
51	5142-A00000047	C snap	1	RTW-47	
52	L-0401-00102	Bearing	2	6005Z	BG-06
53	E-ARAK-55005-01	Shaft	1		
54	5121-C05005020	Key	1	5X5X20L	
55	E-ARAK-03002-01	Encoder bracket	1		
56	L-0902-00003	Timing belt	1	HTD-5M-1135-15	BT-154
57	E-ARAK-03023-01	Timing belt pulley	1		
58	5087-A00000002	Washer	1	AW-02	MLA-99
59		Nut		AN-02	
60	E-ARAK-55008-01	Disc brakes	2		
61	5081-B00000012	Spring washer	4	M12	
62	5001-B12175040	Hex. socket screw	4	M12XP1.75X40L	
63	5001-B10150035	Hex. socket screw	8	M10XP1.5X35L	
64	5081-B00000010	Spring washer	8	M10	
65	E-ARAK-55006-01	Bracket	2		
66	E-ARAK-55035-01	Spacer	2		
67		Key (Milltronics)	1	5X5X17	
68	E-ARAK-03012-01	Shaft (Milltronics)	1		
69		Hex. Socket screw	3	M3XP0.5X14L	
70	E-ARAK-03011-01	Plate (Milltronics)	1		
71		Spring washer	4	M5	
72		Hex. socket screw	4	M5XP0.8X15L	
73		Encoder (Milltronics)	1	C-Axis	EO-42
74		Key (Fagor/Siemens)	1	5X5X17	
75	E-ARAK-03041-01	Shaft (Fagor/Siemens)	1		
76	E-ARAK-03042-01	Plate (Fagor/Siemens)	1		
77		Coupling (Fagor/Siemens)	1		
78		Spring washer	4	M5	
79		Hex. socket screw	4	M5XP0.8X15L	
80		Encoder (Fagor)	1	NE-1024-2MD	
		Encoder (Siemens)	1	FX2001-3GB02	
81		Spring washer	3	M3	
82		Hex. socket screw	3	M3XP0.5X14L	

9. C-Axis (Headstock A2-11, 6" bore-only for ML26)



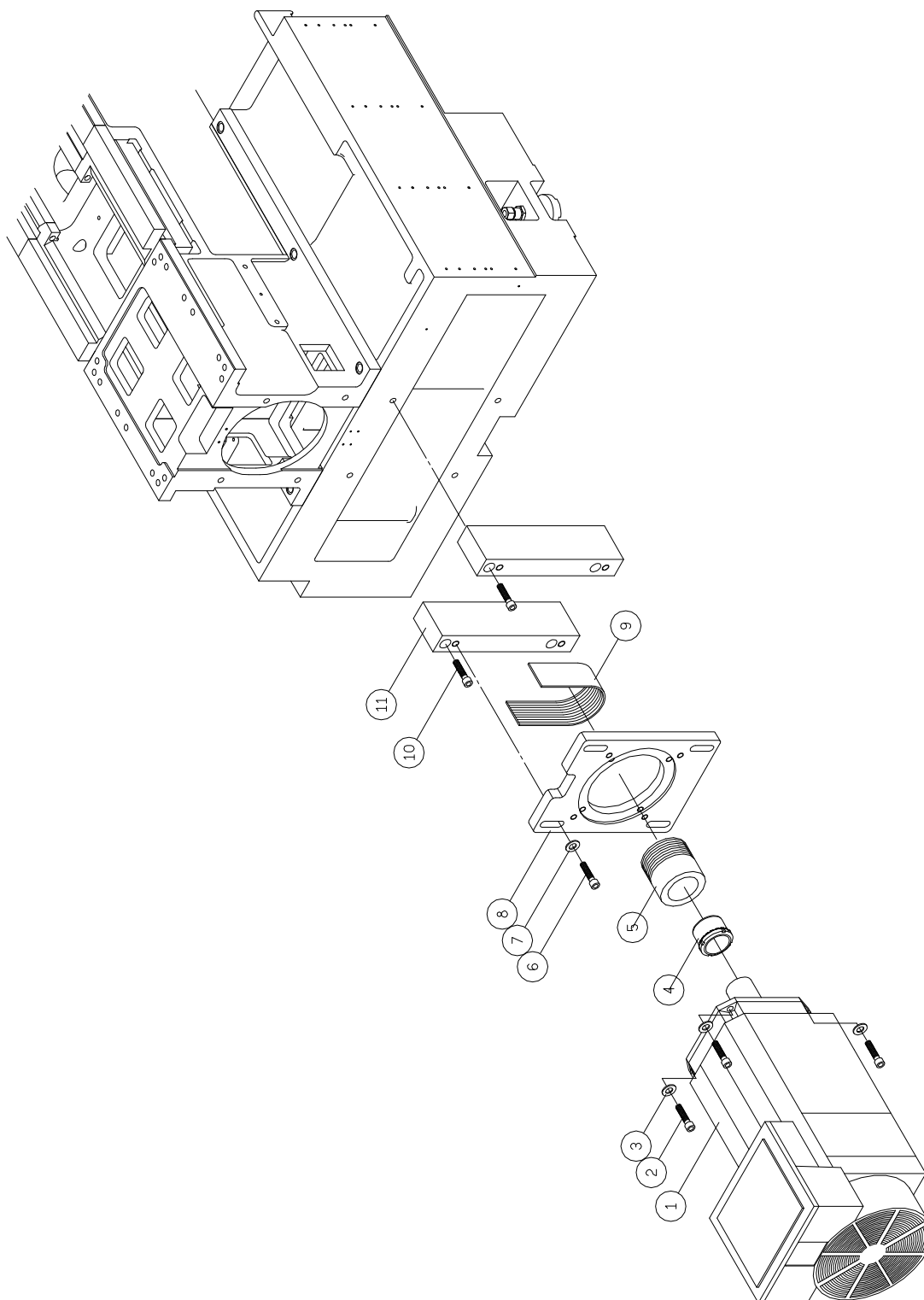
Model	Drive belt #'s
ML16	BT-103 795 L12
ML18	BT-99 865 L12
ML22	BT-101 975 L12
ML22*	BT-116 990 L12
ML26	BT-95 1065 L12
*	With 5:1 belt ratio

C-Axis (Headstock A2-11, 6" bore-only for ML26)

Item	Part no.	Description	Q'ty	Remark	Milltronics #
1		3-jaw chuck	1	SK-16 (option)	MPL-126
2	E-ARAK-01011-01	Sleeve	1		
3	E-ARAK-70096-01	Fixing ring	1		
4	5001-A08125035	Hex. socket screw	4	M8 X P1.25 X 35L	
5	E-ARAM-01203-01	Front coupling cover	1		
6	5001-A10150025	Hex. socket screw	1	M10XP1.5X25L	
7	E-ARAK-01045-01	Drive key	1		
8	E-ARAM-01201-01	Spindle	1	6-Groove	MPL0574
9	5121-C22014200	Key	2	22X10X200L	
	5121-C22010200	Key	2	22x10x200L(For MILL)	
10	E-ARAM-01205-01	Seal ring	1		
11	5001-A10150045	Hex. socket screw	6	M10XP1.5X45L	
12	E-ARAM-01204-01	Cover	1		
13		O ring	1	5x1068I	
14	E-ARAM-01217-01	Bearing	1	NN3044/W33	BG-196
15	E-ARAM-01216-01	Bearing	1	220BADB	---
16	E-ARAM-01206-01	Spacer	1		
17		Nut	1	YSR M220X3.0	
18	5001-A12175065	Hex. socket screw	6	M16XP2.0X45L	
19	E-ARAM-01202-01	Sleeve	1		
20	E-ARA,M-01207-01	Spacer	1		
21	E-ARAM-01215-01	Bearing	1	NN3040/W33	BG-197
22	E-ARAM-00011-01	Head stock	1		
23	E-ARAM-01208-01	Rear coupling cover	1		
24	5001-A10150040	Hex. socket screw	6	M10XP1.5X40L	
25	5001-A08125025	Hex. socket screw	6	M8XP1.25X25L	
26	5001-A08125040	Hex. socket screw	6	M8XP1.25X40L	
27	E-ARAM-01209-01	Rear bearing cover	1		
28	E-ARAM-01210-01	Seal ring	1		
29	E-ARAM-01211-01	Pulley (6 Groove-Enlarge)	1		
	E-ARAM-01251-01	Pulley (6 Groove-Enlarge)	1	(For MILL)	
30	5001-B06100014	Hex. socket screw	8	M6XP1.0X14L	
		Hex. socket screw	8	W3/8"-1"L(For MILL)	
31	E-ARAK-55031-01	Disc	1		
	E-ARAK-55052-01	Disc	1	(For MILL)	
32	E-ARAM-01218-01	Spacer	1	(For MILL)	
33	E-ARAM-01213-01	Spacer	1		
34	E-ARAM-01212-01	Timing belt pulley	1		
35	E-ARAM-01214-01	Pulley (4 Groove-Enlarge)	1		
36		Nut	1	YSK M200X3.0	
37	5071-B00000016	Washer	6	M16	
38	5081-B00000016	Spring washer	6	M16	
39	5001-B16200060	Hex. socket screw	6	M16XP2.0X60L	
40	5001-A08125035	Hex. socket screw	2	M8XP1.25X35L	
41	E-ARAK-00002-01	Adjusting block	1		
42	5002-B10150055	Hex. bolt	2	M10XP1.5X55L	
43	5051-B00010150	Nut	2	M10	

Item	Part no.	Description	Q'ty	Remark	Milltronics #
44		Encoder (Fanuc)	1		
45	5001-B05080015	Hex. socket screw	4	M5XP0.8X15L	
46	5081-B00000005	Spring washer	4	M5	
47	5121-C05005017	Key (Fanuc)	1	5X5X17	
48	E-ARAK-03031-01	Adjusting device for encoder	1		
49	5071-B00000008	washer	8	M8	
50	5081-B00000008	Spring washer	8	M8	
51	5001-B08125045	Hex. socket screw	8	M8XP1.25X45L	
52	5141-A00000025	C snap	1	STW-25	
53	5142-A00000047	C snap	1	RTW-47	
54	L-0401-00102	Bearing	2	6005Z	BG-06
55	E-ARAK-55005-01	Shaft	1		
56	5121-C05005020	Key	1	5X5X20L	
57	E-ARAK-03002-01	Encoder bracket	1		
58	L-0902-00006	Timing belt	1	HTD-5M-1520-15	BT-155
59	E-ARAK-03051-01	Timing belt pulley	1		
60	5087-A00000002	Washer	1	AW-02	MLA-99
61		Nut		AN-02	
62	E-ARAK-55008-01	Disc brakes	2		
63	5081-B00000012	Spring washer	4	M12	
64	5001-B12175040	Hex. socket screw	4	M12XP1.75X40L	
65	5001-B10150035	Hex. socket screw	8	M10XP1.5X35L	
66	5081-B00000010	Spring washer	8	M10	
67	E-ARAK-55006-01	Bracket	2		
68	E-ARAK-55033-01	Spacer	2	(For MILL)	
69		Key (Milltronics)	1	5X5X17	
70	E-ARAK-03012-01	Shaft (Milltronics)	1		
71		Hex. Socket screw	3	M3XP0.5X14L	
72	E-ARAK-03011-01	Plate (Milltronics)	1		
73		Spring washer	4	M5	
74		Hex. socket screw	4	M5XP0.8X15L	
75		Encoder (Milltronics)	1	C-Axis	EO-42
76		Key (Fagor/Siemens)	1	5X5X17	
77	E-ARAK-03041-01	Shaft (Fagor/Siemens)	1		
78	E-ARAK-03042-01	Plate (Fagor/Siemens)	1		
79		Coupling (Fagor/Siemens)	1		
80		Spring washer	4	M5	
81		Hex. socket screw	4	M5XP0.8X15L	
82		Encoder (Fagor)	1	NE-1024-2MD	
		Encoder (Siemens)	1	FX2001-3GB02	
83		Spring washer	3	M3	
84		Hex. socket screw	3	M3XP0.5X14L	

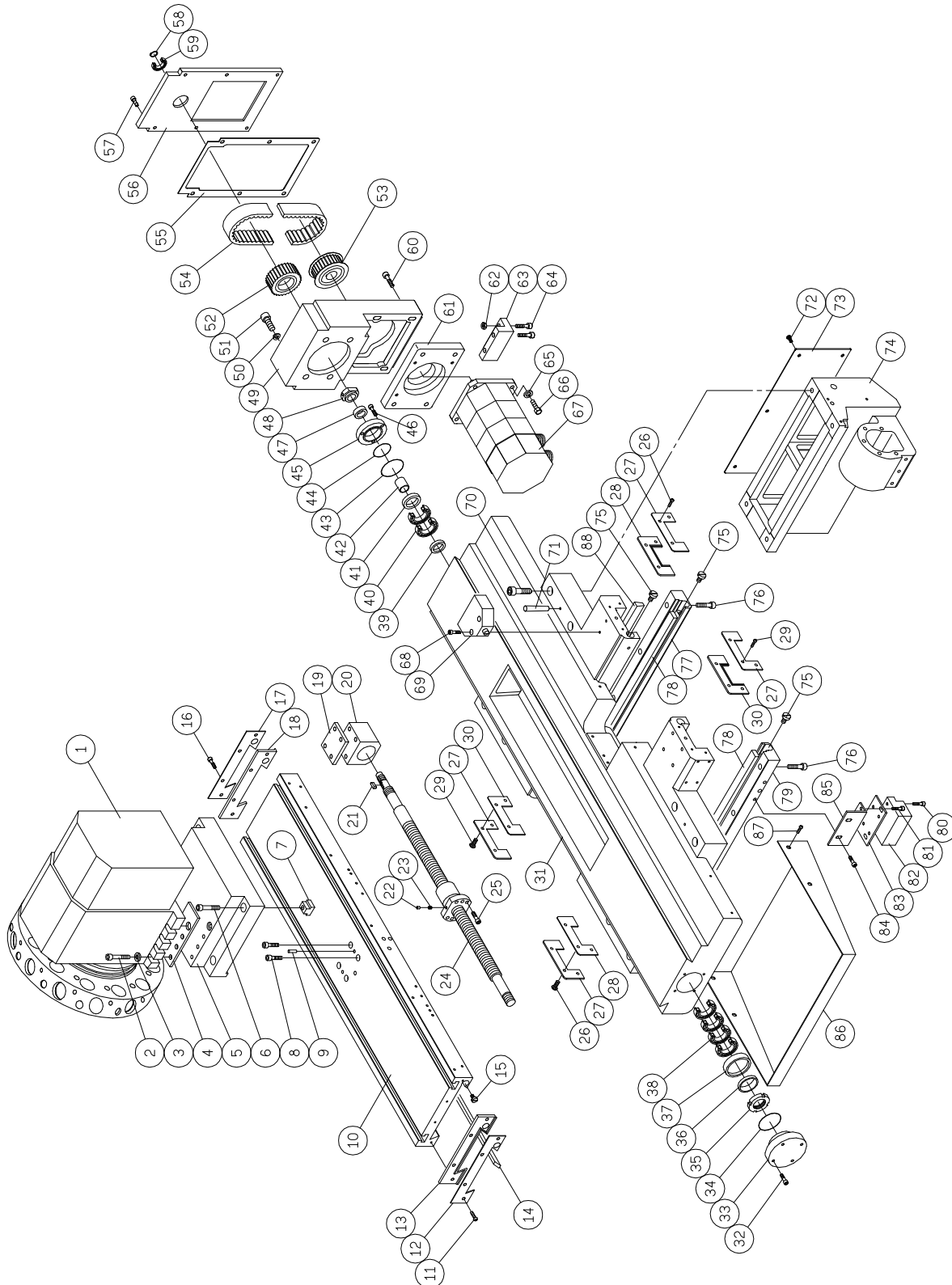
10. Spindle Motor Assembly



Spindle Motor Assembly

Item	Part no.	Description	Q'ty	Remark	Milltronics #
1		Spindle motor	1	Yaskawa	10152
2		Hex. socket screw	4	M14XP2.0X40L	
3		Washer	4	M14	
4	L-1103-00604	Packing toggle	1	TLK250L 48X60	
5	E-ARAK-07081-01	Pulley	1		
6		Hex. socket screw	4	M16XP2.0X75L	
7		Washer	4	M16	
8	E-ARAK-07001-01	Motor plate	1		
9	L-0906-00001	Belt, 3" spindle bore	0 or 1	Gates 975L12	BT-101
	L-0906-00004	Belt, 4&6" spindle bore	0 or 1	Gates 1065L12	BT-95
10		Hex. socket screw	4	M16XP2.0X55L	
11	E-ARAK-07062-01	Adjusting block	2		

11. Carriage & Cross Slide



Carriage & Cross Slide

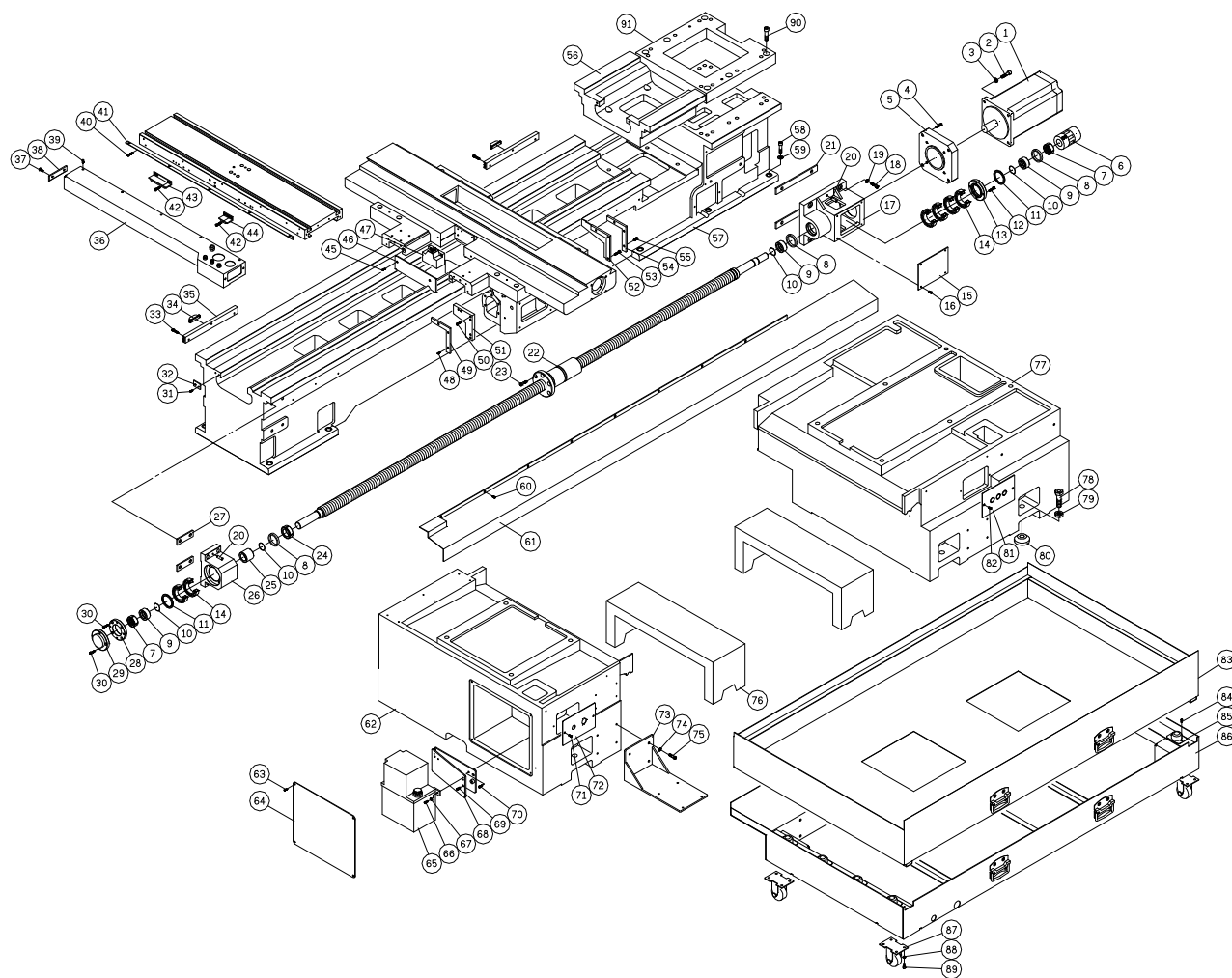
Item	Part no.	Description	Q'ty	Remark	Milltronics #
1	M-0102-12-003	Turret	1	BTP-80	
2		Hex. socket screw	8	M10XP1.5X45L	
3		Spring washer	8	M10	
4	E-ARAK-65036-01	Spacer	2		
5	E-ARAK-65037-01	Raiser block	1	(ML-22)	
	E-ARAM-65161-01	Raiser block	1	(ML-26)	
6		Hex. bolt	4	M12XP1.75X35L	
7	E-ARAK-30007-01	T block	4		
8		Hex. socket screw	8	M8XP1.25X45L	
9		Taper pin	2	#6X50L	
10	E-ARAK-30001-01	Cross slide	1		MPL-904
11		Cap screw	4	M5XP0.8X12L	
12	E-ARAK-30004-01	Press plate	1		
13	E-ARAK-30003-02	Wiper	1		9800-132*
14	E-ARAK-30002-01	Gib	1		MLT-154
15		Adjusting screw	2		
16		Cap screw	4	M5XP0.8X12L	
17	E-ARAK-30004-01	Press plate	1		
18	E-ARAK-30005-02	Wiper	1	MLT-406 → Piece	9800-132*
19	E-ARAK-51008-01	Spacer	1		
20	E-ARAK-51007-01	Yoke	1		
21		Key	1	6X6X20L	
22	E-ARAK-51005-01	Bushing	1		
23	E-ARAK-51006-01	Spring	1		
24	E-ARAK-51101-01	Ball screw & nut	1		
25		Hex. socket screw	6	M6XP1.0X16L	
26		Cap screw	4	M5XP0.8X12L	
27	E-ARAK-20012-01	Plate	4		
28	E-ARAK-20006-02	Wiper	2		
29		Cap screw	6	M5XP0.8X12L	
30	E-ARAK-20021-02	Carriage	1		
31	E-ARAK-20007-02	Wiper	2		
32		Hex. socket screw	4	M6XP1.0X20L	
33	E-ARAK-51002-02	Cover	1		
34	L-0603-00003	O ring	1	S60	
35	L-0251-00002	Nut	1	YSF M25x1.5	
36	E-ARAK-51004-01	Spacer	1		
37	E-ARAK-51003-01	Spacer	1		
38	L-0404-00054	Bearing	1 set	25TAC-	BG-89

Item	Part no.	Description	Q'ty	Remark	Milltronics #
				62BSUC10P	
39	L-0604-00001	Oil seal	1	TC-284510	BG-126/156 MLT-177
40	L-0402-00002	Bearing	1 set	BS25/52/15 DUM	BG-125
41	E-ARAK-51009-01	Spacer	1		
42	E-ARAK-51010-01	Spacer	1		
43	L-0603-00002	O ring	1	S50	
44	L-0602-00006	O ring	1	G25	
45	E-ARAK-51011-01	Cover	1		
46		Hex. socket screw	4	M6XP1.0X16L	BG-211
47	L-0604-00002	Oil seal	1	TC-354508	
48	L-0251-00002	Nut	1	YSF M25x1.5	
49	E-ARAK-51013-01	Motor bracket for X axis	1		
50		Spring washer	4	M10	
51		Hex. socket screw	4	M10XP1.5X435L	
52	E-ARAK-51012-01	Timing belt pulley	1		MLT-188
53	E-ARAK-51031-01	Timing belt pulley	1	Yaskawa	
54	L-0902-00027	Timing belt	1	HTD-5M-575-20	BT-98 or 110
55	E-ARAK-51024-01	Plate	1		
56	E-ARAK-51014-01	Cover for X motor bracket	1		
57		Hex. socket screw	6	M6XP1.0X20L	
58		C snap	1	STW-17	
59	L-0401-00123	Bearing	1	6203DDU	BG-13
60		Hex. socket screw	4	M10XP.15X50L	
61	E-ARAK-51015-01	Motor bracket	1		
62		Nut	1	M8	
63	E-ARAK-51017-01	Adjusting block	1		
64		Hex. socket screw	1	M8XP1.25X55L	
65		Spring washer	4	M8	
66		Hex. socket screw	4	M8XP1.25X25L	
67		Servo motor for X axis	1	Yaskawa	MO-244
68		Hex. socket screw		M6XP1.0X16L	
69	Q-0228-00003	Limit switch	1	BNS-819-B02-D12-61-12-10	SW-200
70		Hex. socket screw	4	M12XP1.75X70L	
71		Taper pin	4	#7X80L	
72		Cap screw	6	M6XP1.0X12L	
73	E-ARAK-70039-01	Cover	1		
74	E-ARAK-53111-01	Yoke for Z axis (ML-2240/2640)	1		
	E-ARAK-53111-01	Yoke for Z axis (ML-2260/2660)	1		

Item	Part no.	Description	Q'ty	Remark	Milltronics #
	E-ARAK-53112-01	Yoke for Z axis (ML-2280/2680)	1		
75		Adjusting screw	6		
76		Hex. socket screw	8	M12XP1.75X40L	
77	E-ARAK-20003-01	Press block (rear)	1		
78	E-ARAK-20004-01	Gib	2		MLT-207
79	E-ARAK-20002-01	Press block (front)	1		
80		Hex. socket screw	2	M6XP1.0X16L	
81		Hex. socket screw	2	M6XP1.0X12L	
82	Q-0228-00002	Limit switch	1	BNS-819-FD-60-101	SW-203
83	E-ARAK-73017-01	Block for limit switch	1		
84		Hex. socket screw	2	M6XP1.0X16L	
85	E-ARAK-73016-01	Support for limit switch	1		
86		Tray guard	1		
87		Screw	4	M6XP1.0X12L	
88	E-ARAK-20022-01	Gib	1		

Not Shown		
	X cable track	MPL-329
	Oil compression nut	NU-45
	Oil compression fitting	NU-108
	Ferrule	NU-38
	Oil meter	NU-337
	Oil line (braided)	NU-539
	Oil line (aluminum)	NU-538

12. Bed for 40/60/80" length



Bed for 40/60/80" length

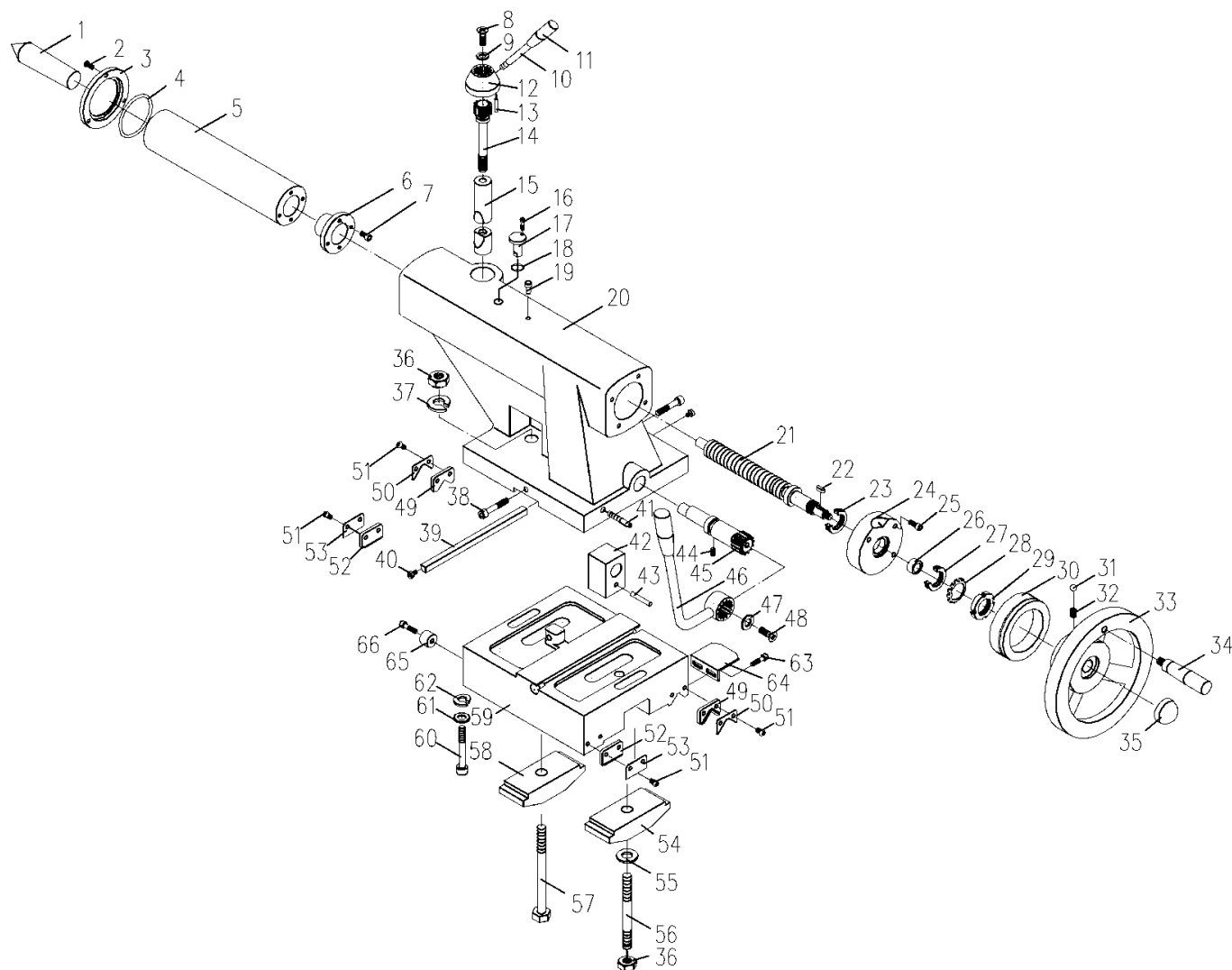
Item	Part no.	Description	Q'ty	Remark	Milltronics #
1		Servo motor	1	Yaskawa	MO-248
2		Hex. socket screw	4	M8XP1.25X35L	
3		Spring washer	4	M8	
4		Hex. socket screw	4	M8XP1.25X30L	
5	E-ARAK-53206-01	Motor bracket	1	Yaskawa	
6	L-1101-00007	Coupling	1		
7	L-0251-00003	Nut (ML-2240/2260)	2	YSF M30x1.5	
	L-0251-00001	Nut (ML-2280)	2	YSF M35x1.5	
8	L-0604-00004	Oil seal (ML-2240/2260)	3	TC-455508	MLB-122
	L-0604-00023	Oil seal (ML-2280)	3	TC-506208	
9	E-ARAK-53005-01	Spacer (ML-2240/2260)	3		MLB-120
	E-ARAK-53047-01	Spacer (ML-2280)	3		
10	L-0602-00002	O ring	4	G30	
	L-0602-00011	O ring	4	G35	
11	E-ARAK-53004-01	Cover	1		
	E-ARAK-53046-01	Cover	1		
12		Hex. socket screw	4	M6XP1.0X16L	
13	E-ARAK-53006-01	Spacer (ML-2240/2260)	2		
	E-ARAK-53048-01	Spacer (ML-2280)	2		
14	L-0404-00055	Bearing	1 set	35TAC72BSUC 10PN7B	BG-131
	L-0404-00056	Bearing	1 set	35TAC72BSUC 10PN7B	
15	E-ARAK-70050-01	Cover	1		
16		Cap screw	4	M6XP1.0X12L	
17	E-ARAK-53003-01	Bearing bracket for Z axis	1	(ML-2240/2260)	
	E-ARAK-53045-01	Bearing bracket for Z axis	1	(ML-2280)	
18		Hex. bolt	4	M12XP1.25X50L	
19		Spring washer	4	M12	
20		Taper pin	4	#7X70L	
21	E-ARAK-53010-01	Spacer	2		
22	E-ARAK-53001-01	Ballscrew (ML-2240)	1		MPL-820
	E-ARAK-53031-01	Ballscrew (ML-2260)	1		
	E-ARAK-53043-01	Ballscrew (ML-2280)	1		
23		Hex. socket screw	5	M10XP1.5X25L	
24	L-0251-00001	Nut (ML-2240/2260)	1	M40x1.5	
	L-0251-00005	Nut (ML-2280)	1	M40x1.5	
25	E-ARAK-53052-01	Spacer (ML-2240/2260)	1		
	E-ARAK-53018-01	Spacer (ML-2280)	1		

Item	Part no.	Description	Q'ty	Remark	Milltronics #
26	E-ARAK-53008-01	Bearing bracket for Z axis	1	(ML-2240/2260)	
	E-ARAK-53049-01	Bearing bracket for Z axis	1	(ML-2280)	
27	E-ARAK-53011-01	Spacer	2		
28	E-ARAK-53009-01	Cover (ML-2240/2260)	1		
	E-ARAK-53050-01	Cover (ML-2280)	1		
29	E-ARAK-53015-01	Cover (ML-2240/2260)	1		
	E-ARAK-53044-01	Cover (ML-2280)	1		
30		Hex. socket screw	8	M6XP1.0X16L	
31		Cap screw	2	M6XP1.0X12L	
32	E-ARAK-70028-01	Stop	1		
33		Hex. socket screw	6	M6XP1.0X12L	
34	L-5905-00001	Dog	3	DTS-2TS-12-300-16T	
35	L-5905-00026	Dog guide	2	DTS-25-57-19	
36		Wire track	1		
37		Cap screw	2	M5XP0.8X12L	
38	E-ARAK-70058-01	Wiper	1		9800-132
39		Cap screw	5	M6XP1.0X10L	
40		Hex. socket screw	5	M6XP1.0X16L	
41		Wire track bracket	1		
42		Hex. socket screw	4	M6XP1.0X16L	MLB-149
43	E-ARAK-73018-03	Stop block	1		
44	E-ARAK-73019-02	Stop block	1		
45		Cap screw	2	M6XP1.0X12L	
46	E-ARAK-73027-01	Cover	1		
47	Q-0228-00002	Limit switch	1	BNS-819-FD-60-101	
48		Cap screw	3	M5XP0.8X12L	
49	E-ARAK-70056-01	Wiper	1		9800-132
50		Cap screw	3	M6XP1.0X16L	
51	E-ARAK-70049-01	Wiper support	1		9800-132
52	E-ARAK-70048-01	Wiper support	1		
53		Cap screw	3	M6XP1.0X16L	
54	E-ARAK-70057-01	Wiper	1		9800-132
55		Cap screw	4	M5XP0.8X12L	
56		Gap	1		
57	E-ARAK-10003-01	Bed (ML-2240)	1		
	E-ARAK-10032-01	Bed (ML-2260)	1		
	E-ARAK-10042-01	Bed (ML-2280)	1		
58		Hex. socket screw	10	M16XP2.0X60L	
59		Spring washer	10	M16	
60		Cap screw (BNC-2240)	8	M6XP1.0X12L	

Item	Part no.	Description	Q'ty	Remark	Milltronics #
		Cap screw (BNC-2260)	10	M6XP1.0X12L	
		Cap screw (BNC-2280)	12	M6XP1.0X12L	
61	2240-001	Ballscrew cover	1		
	2260-001	Ballscrew cover	1		
	2280-001	Ballscrew cover	1		
62	E-ARAK-40002-02	Right stand	1		
63		Cap screw	4	M6XP1.0X12L	
64	L-5904-00209	Acrylic	1		
65	L-0801-00001	Automatic lubrication pump	1	CEN01	MA-458
66		Spring washer	2	M6	
67		Hex. socket screw	2	M6XP1.0X16L	
68	E-ARNF-70028-01	Connecting plate	1		
69		Hex. socket screw	1	M6XP1.0X15L	
70		Hex. socket screw	2	M6XP1.0X15L	
71		Cap screw	4	M6XP1.0X15L	
72	E-ARAK-73028-01	Cover	1		
73	E-ARAK-70042-01	Pump bracket	1		MA-351
74		Spring washer	4	M8	
75		Hex. socket screw	4	M8XP1.25X20L	
76	E-ARAK-41003-01	Tank support	4		
77	E-ARAK-40011-01	Middle stand	1		
78	E-ARAK-40001-01	Left stand	1		
79	E-ARAK-40003-01	Nut	8		
80	E-ARAK-40003-01	Leveling bolt	8		MLB-185
81	E-ARAK-40004-01	Leveling block	8		
82	E-ARAK-70045-01	Cover	1		
83		Cap screw	2	M6XP1.0X15L	
84		Coolant tray	2		
85		Hex. socket screw	32	M5XP0.8X12L	
86		Roller	16	1"	
87		Coolant tank	2		
88		Roller wheel	8	3"DX1.2"T	
89		Spring washer	32	M8	
90		Hex. socket screw	32	M8XP1.25X16L	
91		Hex. socket screw (ML-26)	6	M16XP2.0X60L	
92	E-ARAK-00021-01	Block (ML-26)	1		

Not shown		
	Coolant pump TPH2T-2K	MA-290
	Site Glass, LS-3"	NU-344

13. Manual Tailstock

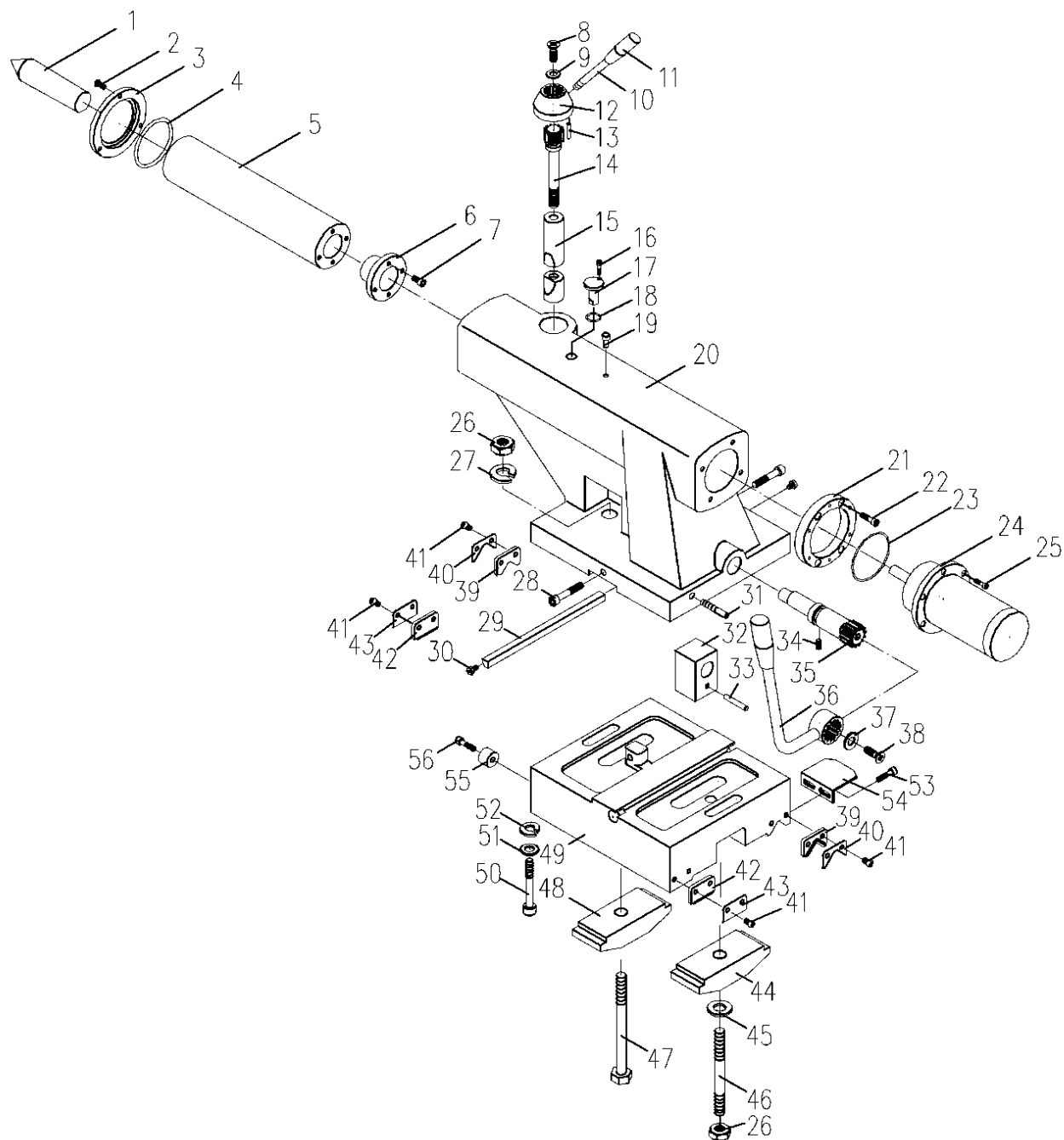


Manual Tailstock

Item	Part no.	Description	Q'ty	Remark	Milltronics #
1	L-2101-00003	Center		MT5	
2	5001-B06100015	Hex. socket screw	4	M6XP1.0X12L	
3	E-ARAK-60022-01	Front cover	1		
4		O ring	1	G-80	MLA-75
5	E-ARAK-60003-01	Quill	1		
6	E-ARAK-60006-01	Nut	1		MLA-200
7	5001-A06100015	Hex. socket screw	4	M6XP1.0X25L	
8	5007-B06100015	Flat screw	1	M6XP1.0X15L	MPL-859
9	E-ARAK-60014-01	Washer	1		MPL-860
10	E-ARAK-60021-01	Lever	1		MLA-81
11		Handle	1	M8	MLA-82
12	E-ARAK-60008-01	Lever seat	1		MLA-83
13	5105-A00004012	Spring pin	1	4X12L	
14	E-ARAK-60009-01	Bolt	1		MPL-861
15	E-ARAK-60010-01	block - clamp	1		MPL-862
16	5001-B05080012	Hex. socket screw	2	M5XP0.8X12L	
17	E-ARAK-60013-01	Key	1		
18		O ring	1	P-12	
19		Oil plug	1	1/4"	
20	E-ARAK-60001-01	Tailstock body	1		
21	E-ARAK-60007-01	Lead screw	1		
22	5121-C06006020	Key	1	6X6X20L	MLA-93
23		Bearing	1	51104	MLA-30
24	E-ARAK-60019-01	Indexing dial	1		MLA-95
25	5001-A08125016	Hex. socket screw	4	M8XP1.25X16L	MLA-96
26		Bearing	1	80B-2030	MLA-97
27		Bearing	1	51104	MLA-30
28	5087-A00000004	Washer	1	AW-04	MLA-99
29		Nut	1	AN-04	MLA-100
30	E-ARAK-60020-01	Dial	1		MLA-101
31		Steel ball	1	1/4"	MLA-102 / BG-18
32		Spring	1	φ6Xφ8Xφ1X15L	MLA-103
33	E-ARAK-60005-01	Hand wheel	1		MLA-104
34		Knob	1	M10	MLA-105
35	5055-B00010175	Nut	1	M12	MLA-106
36	5051-B00020250	Nut	1	M20	MLA-106
37	5081-B00000020	Washer	1	M20	
38	5001-B08125055	Hex. socket screw	2	M8XP1.25X55L	
39	E-ARAK-60016-01	Gib	1		
40	E-ARAK-60023-01	Adjusting screw	2		

Item	Part no.	Description	Q'ty	Remark	Milltronics #
41	E-ARAK-60017-01	Bolt	1		
42	E-ARAK-60012-01	Block - adjusting	1		MLA-236
43	5105-A00004035	Spring pin	1	4X35L	MLA-237
44	5010-A08125016	Set screw	1	M8XP1.25X16L	MLA-96
45	E-ARAK-60015-01	Shaft	1		MLA-116
46	E-ARAK-60018-01	Lever	1		
47	E-ARAK-60028-01	Washer	1		
48	5007-B06100015	Flat screw	1	M6XP1.0X15L	
49	E-ARAK-60026-01	Wiper	2		
50	E-ARAK-60027-01	Wiper press plate	2		
51	5004-B05080012	Cap screw	8	M5XP0.8X12L	
52	E-ARAK-60024-01	Wiper	2		MLA-246
53	E-ARAK-60025-01	Wiper press plate	2		MLA-247
54	E-ARAK-60004-01	Clamp	1		
55	5071-B00000020	Washer	1	M20	
56	E-ARAK-60011-01	Bolt	1		MPL-912
57	5002-B20250205	Hex. Bolt	1	M20XP2.5X205L	MLA-127
58	E-ARAK-60029-03	Clamp	1		
59	E-ARAK-60002-01	Body base	1	ML22	
	E-ARAM-60001-01	Body base	1	ML26	
60	5001-A10150060	Hex. socket screw	1	M10XP1.5X60L	
61	5071-B00000010	Washer	2	M10	
62	5081-B00000010	Spring washer	2	M10	
63	5004-B06100012	Cap screw	2	M6XP1.0X12L	
64	E-ARAK-73021-01	Dog	1		
65	E-ARAK-60030-01	Stopper	1		
66	5001-B06100020	Hex. socket screw	1	M6XP1.0X12L	

14. Hydraulic Tailstock

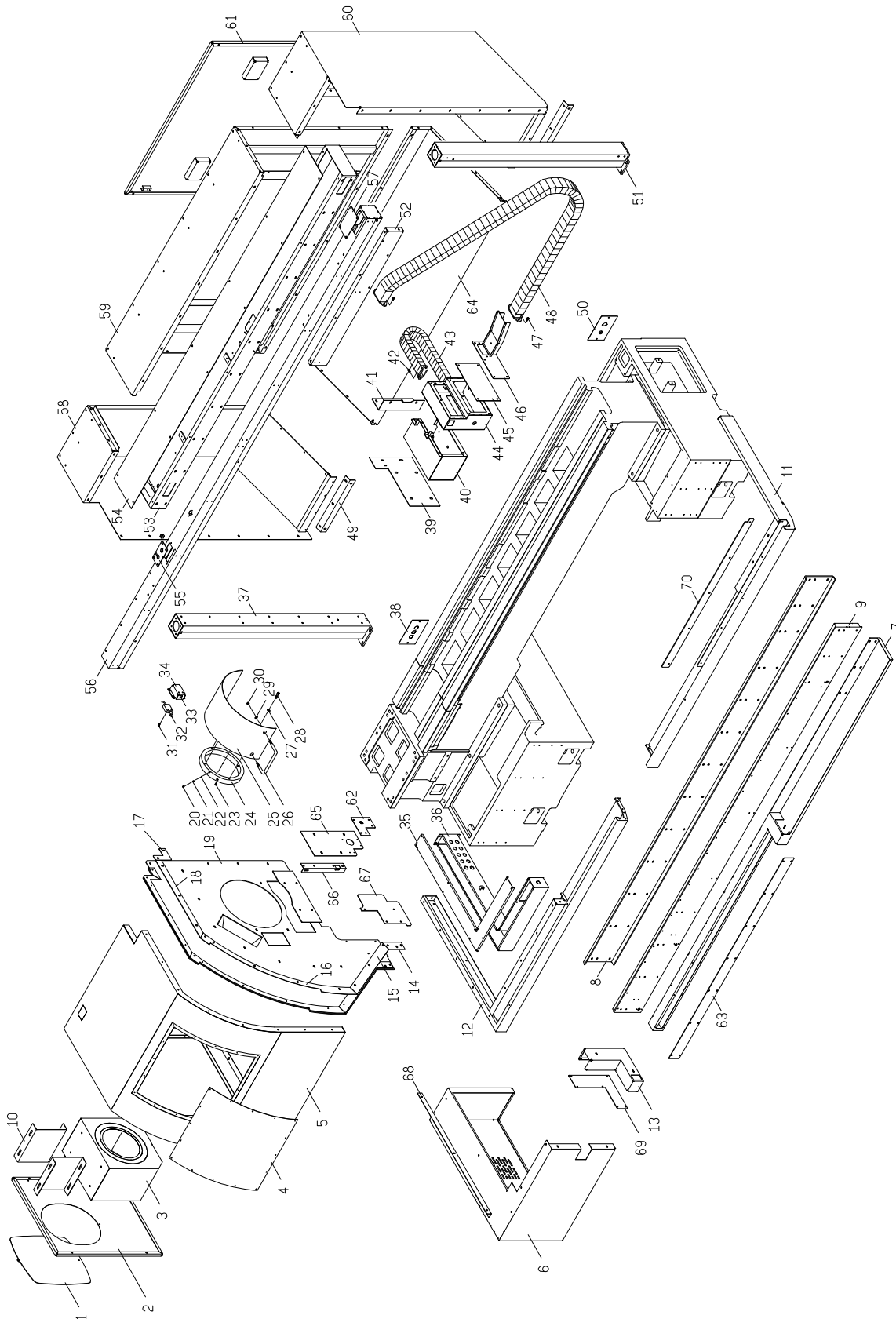


Hydraulic Tailstock

Item	Part no.	Description	Q'ty	Remark	Milltronics #
1	L-2101-00003	Center		MT5	
2	5001-B06100015	Hex. socket screw	4	M6XP1.0X12L	
3	E-ARAK-60022-01	Front cover	1		
4		O ring	1	G-80	MLA-75
5	E-ARAK-60003-01	Quill	1		
6	E-ARAK-60133-01	Connector plate	1		
7	5001-A06100015	Hex. socket screw	4	M6XP1.0X25L	
8	5007-B06100015	Flat screw	1	M6XP1.0X15L	
9	E-ARAK-60014-01	Washer	1		
10	E-ARAK-60021-01	Lever	1		
11		Handle	1	M8	
12	E-ARAK-60008-01	Lever seat	1		
13	5105-A00004012	Spring pin	1	4X12L	
14	E-ARAK-60009-01	Bolt	1		
15	E-ARAK-60010-01	block - clamp	1		
16	5001-B05080012	Hex. socket screw	2	M5XP0.8X12L	
17	E-ARAK-60013-01	Key	1		
18		O ring	1	P-12	
19		Oil plug	1	1/4"	
20	E-ARAK-60001-01	Tailstock body	1		
21	E-ARAK-60132-01	Indexing dial	1		
22	5001-A08125025	Hex. socket screw	4	M8XP1.25X25L	
23		O ring	1	G-90	
24	E-ARAK-60131-01	Cylinder	1		
25	5001-A06100025	Hex. socket screw	6	M6XP1.0X25L	
26	5051-B00020250	Nut	1	M20	
27	5081-B00000020	Washer	1	M20	
28	5001-B08125055	Hex. socket screw	2	M8XP1.25X55L	
29	E-ARAK-60016-01	Gib	1		
30	E-ARAK-60023-01	Adjusting screw	2		
31	E-ARAK-60017-01	Bolt	1		
32	E-ARAK-60012-01	Block - adjusting	1		
33	5105-A00004035	Spring pin	1	4X35L	
34	5010-A08125016	Set screw	1	M8XP1.25X16L	
35	E-ARAK-60015-01	Shaft	1		
36	E-ARAK-60018-01	Lever	1		
37	E-ARAK-60028-01	Washer	1		
38	5007-B06100015	Flat screw	1	M6XP1.0X15L	
39	E-ARAK-60026-01	Wiper	2		9800-132 *
40	E-ARAK-60027-01	Wiper press plate	2		9800-132 *

Item	Part no.	Description	Q'ty	Remark	Milltronics #
41	5004-B05080012	Cap screw	8	M5XP0.8X12L	
42	E-ARAK-60024-01	Wiper	2		9800-132 *
43	E-ARAK-60025-01	Wiper press plate	2		9800-132 *
44	E-ARAK-60004-01	Clamp	1		
45	5071-B00000020	Washer	1	M20	
46	E-ARAK-60011-01	Bolt	1		
47	5002-B20250205	Hex. Bolt	1	M20XP2.5X205L	
48	E-ARAK-60029-03	Clamp	1		
49	E-ARAK-60002-01	Body base	1	ML22	
	E-ARAM-60001-01	Body base	1	ML26	
50	5001-A10150060	Hex. socket screw	1	M10XP1.5X60L	
51	5071-B00000010	Washer	2	M10	
52	5081-B00000010	Spring washer	2	M10	
53	5004-B06100012	Cap screw	2	M6XP1.0X12L	
54	E-ARAK-73021-01	Dog	1		
55	E-ARAK-60030-01	Stopper	1		
56	5001-B06100020	Hex. socket screw	1	M6XP1.0X12L	

15. Guarding (40", 60", 80" Beds)



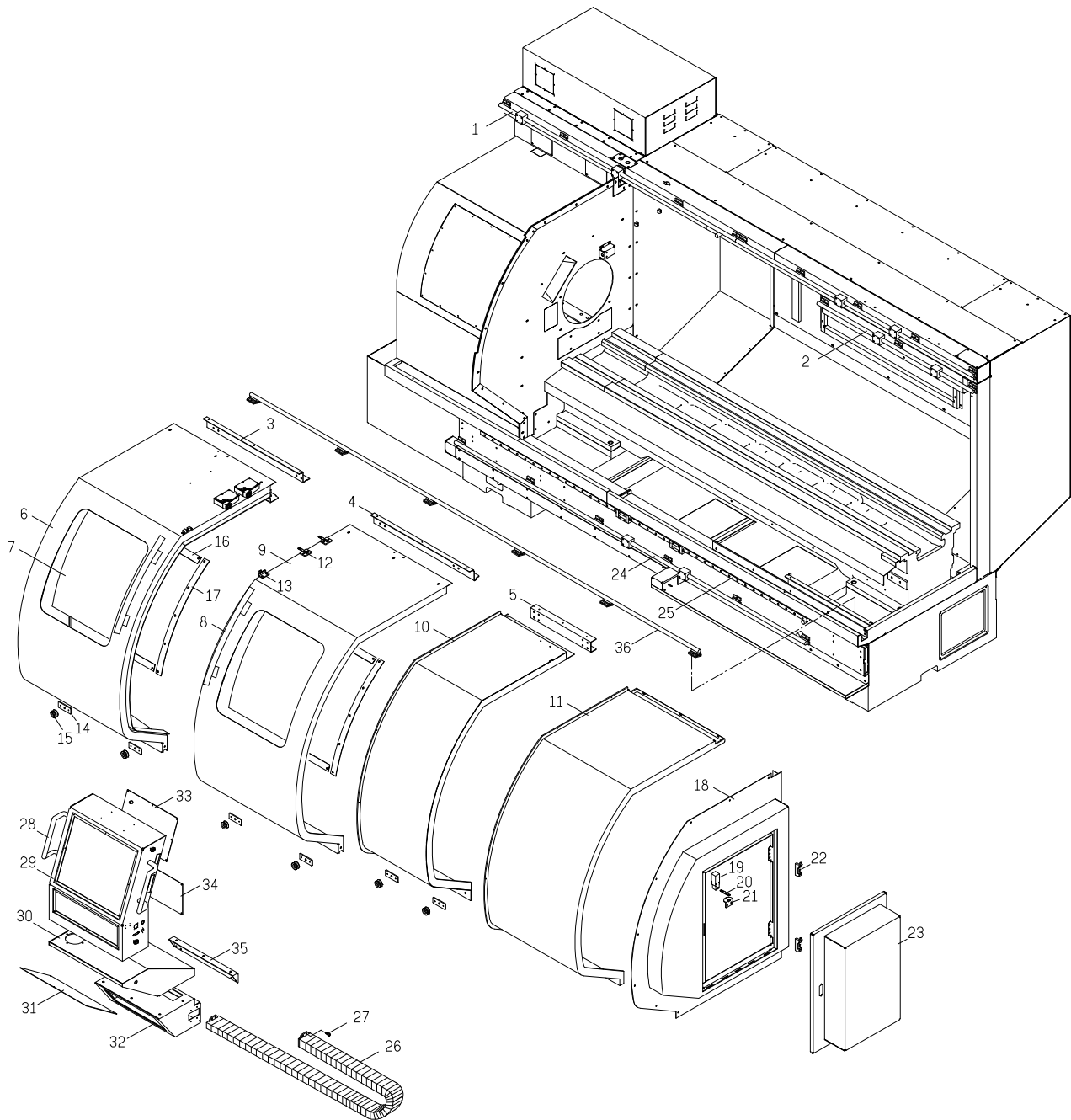
Guarding (40", 60", 80" Beds)

Item	Part no.	Description	Q'ty	Remark
1		Plate	1	
2		Side door cover	1	
3		Coolant collect	1	
4		Plate	1	
5	E-ARAK-70002-02	Left guard	1	
6		Cover-spindle motor	1	
7		Duct	1	ML-22/2640
		Duct	1	ML-22/2660
		Duct	1	ML-22/2680
8		Bracket	0	ML-22/2640
		Bracket	1	ML-22/2660
		Bracket	1	ML-22/2680
9		Fixing bracket	1	ML-22/2640
		Fixing bracket	1	ML-22/2660
		Fixing bracket	1	ML-22/2680
10		Fixing bracket	2	
11		Guide way bracket	1	ML-22/2640
		Guide way bracket	1	ML-22/2660
		Guide way bracket	1	ML-22/2680
12		Guide way bracket	1	ML-22/2640
		Guide way bracket	1	ML-22/2660
		Guide way bracket	1	ML-22/2680
13	E-ARAK-73010-02	Duct	1	
14		Press plate	1	
15		Press plate	1	
16		Press plate	1	
17		Press plate	1	
18		Press plate	1	
19	E-ARAK-70003-07	Side guard	1	ML-22
	E-ARAM-70003-01	Side guard	1	ML-26
20		Hex. screw socket	3	M8XP1.25X16L
21		Compress washer	3	6X12L
22		Steel ball	3	1/4"
23	E-ARAK-70041-01	Set screw	3	
24	E-ARAK-70033-01	Fix ring	1	
25	E-ARAK-70034-01	Chuck guard	1	A1-8(3" bore)
	E-ARAK-70066-01	Chuck guard	1	A1-11(4" bore)
	E-ARAK-70100-01	Chuck guard	1	A2-11(6" bore)
	E-ARAK-70153-01	Chuck guard	1	D1-8(3" bore)
	E-ARAK-70154-01	Chuck guard	1	D1-8(4" bore)
	E-ARAK-70155-01	Chuck guard	1	D1-11(6" bore)
26	E-ARAK-70069-01	Handle	1	
27		Spring washer	3	M8
28		Hex. socket screw	3	M8XP1.25X16L
29		Spring washer	2	M6
30		Nut	2	M6
31		Cap screw	2	M5XP0.8X20L
32		Limit switch	1	D4C-1202
33	E-ARAK-73012-01	Limit switch bracket	1	
34		Cap screw	4	M6XP1.0X12L
35		Cover	1	
36	E-ARAK-73020-01	Duct	1	

Item	Part no.	Description	Q'ty	Remark
37	E-ARAK-70006-01	Left bracket	1	
38	E-ARAK-73032-01	Cover	1	
39	E-ARAK-73025-01	Left cover	1	
40	E-ARAK-73024-01	Cover	1	
41	E-ARAK-73023-01	Rear cover	1	
42		Hex. socket screw	4	M6XP1.0X12L
43	E-ARAK-94011-02	Cable carrier	1	SQ301-II-R100-600L(No.11)
44	E-ARAK-73013-01	Box	1	
45	E-ARAK-73026-01	Cover	1	
46	E-ARAK-73014-01	Bracket	1	
47		Hex. socket screw	4	M6XP1.0X12L
48	E-ARAK-94013-01	Cable carrier (ML-22/2640)	1	SQ301-II-R250-1500L(No.8)
	E-ARAK-94021-01	Cable carrier (ML-22/2640)	1	SQ301-II-R250-1800L(No.8)
	E-ARAK-94026-02	Cable carrier (ML-22/2680)	1	SQ301-II-R250-2040L(No.8)
49		Bracket	1	
50	E-ARAK-70043-01	Side guard	1	
51	E-ARAK-70013-02	Right guard	1	
52		Top bracket	0	ML-22/2640
		Top bracket	1	ML-22/2660
		Top bracket	1	ML-22/2680
53		Top duct	1	ML-22/2640
		Top duct	1	ML-22/2660
		Top duct	1	ML-22/2680
54		cover	1	ML-22/2640
			1	ML-22/2660
			1	ML-22/2680
55		Plate	1	
56		Top bracket	1	ML-22/2640
		Top bracket	1	ML-22/2660
		Top bracket	1	ML-22/2680
57	E-ARAK-73011-01	Cover	1	
58	E-ARAK-70007-03	Rear left guard	1	
59		Rear top guard	1	ML-22/2640
		Rear top guard	1	ML-22/2660
		Rear top guard	1	ML-22/2680
60	E-ARAK-70012-02	Rear right guard	1	
61		Rear guard	1	
62		Cover	1	
63		Cover	1	ML-22/2640
		Cover	1	ML-22/2660
		Cover	1	ML-22/2680
64		Rear bottom guard	1	ML-22/2640
		Rear bottom guard	1	ML-22/2660
		Rear bottom guard	1	ML-22/2680
65		Plate	1	
66		Fixing bracket	1	
67		Plate	1	
68		Fixing bracket	1	
69		Plate	1	
70		Guide way bracket	1	ML-22/2640
		Guide way bracket	1	ML-22/2660
		Guide way bracket	1	ML-22/2680

#48-ML22/60X-Spec.: SQ301-III-R100-1410L

16. Guarding – Doors



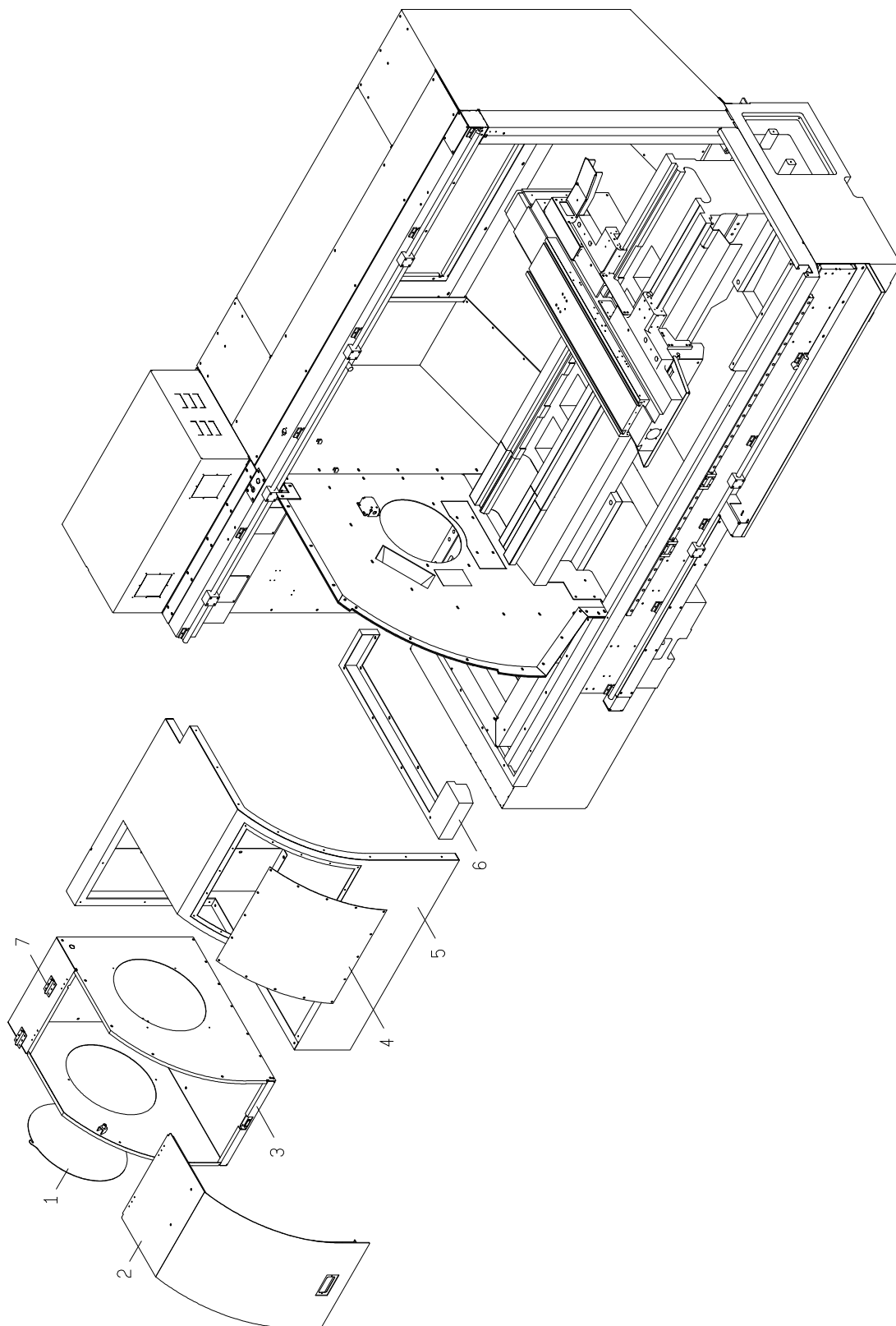
Guarding-Doors

Item	Part no.	Description	Q'ty	Remark
1		Rod guide way (for 40" length)	1	LMC-C20-2980L
		Rod guide way (for 60" length)	2	LMC-C20-1740L
		Rod guide way (for 80" length)	2	LMC-C20-1990L
		Rod guide way (for 120" length)	2	LMC-C20-2490L
		Rod guide way (for 160" length)	2	LMC-C20-2990L
2		Rod guide way (for 40" length)	0	
		Rod guide way (for 60" length)	1	LMC-C20-1140L
		Rod guide way (for 80" length)	1	LMC-C20-1640L
		Rod guide way (for 120" length)	1	LMC-C20-2100L
		Rod guide way (for 160" length)	1	LMC-C20-2400L
3		Top bracket	1	
4		Top bracket	1	
5		Top bracket (for 40" length)	0	
		Top bracket (for 60" length)	1	
		Top bracket (for 80" length)	1	
		Top bracket (for 120" length)	1	
		Top bracket (for 160" length)	1	
6		Front door-left	1	
7	L-5904-00106	Glass	2	
8	L-5901-00009	Handle	2	
9		Front door-right	1	
10		Front door (for 40" length)	0	
		Front door (for 60" length)	1	
		Front door (for 80" length)	1	
		Front door (for 120" length)	1	
		Front door (for 160" length)	1	
11		Front door	1	
12		Fixing plate	2	
13		Door lock	1 set	
14		Fixing plate	6	
15		Wheel	6	
16		Press plate	4	
17		Press plate	4	
18		Side Guard	1	(option)
19		Limit switch	1	(option)
20		Pin	1	(option)
21		Bracket	1	(option)
22		Door hinge	2 set	(option)
23		Side cover	1	(option)
24		Rod guide way (for 40" length)	1	LMC-C20-1990L
		Rod guide way (for 60" length)	1	LMC-C20-2580L
		Rod guide way (for 80" length)	1	LMC-C20-2900L
		Rod guide way (for 120" length)	2	LMC-C20-2040L
		Rod guide way (for 160" length)	2	LMC-C20-2540L
25	E-ARJK-94001-01	Linear way (for 40" length)	1	BRS25B2-L1860-N-Z0-1
	E-ARJK-94002-01	Linear way (for 60" length)	1	BRS25B2-L2400-N-Z0-1
	E-ARAK-94001-01	Linear way (for 80" length)	1	BRS25B2-L3000-N-Z0-1
	E-ARAK-94002-01	Linear way (for 120" length)	1	BRS25B2-L4000-N-Z0-1
	E-ARAK-94003-01	Linear way (for 160" length)	1	BRS25B2-L5000-N-Z0-1
26	E-ARAK-94012-01	Cable carrier (for 40" length)	1	SQ301-II-R100-600L(No.5)
	E-ARAK-94012-01	Cable carrier (for 60" length)	1	SQ301-II-R100-600L(No.5)
	E-ARAK-94027-01	Cable carrier (for 80" length)	1	SQ301-II-R100-210L(No.5)

Item	Part no.	Description	Q'ty	Remark
	E-ARAK-94030-01	Cable carrier (for 120" length)	1	SQ301-II-R100-2650L(No.5)
	E-ARAK-94017-02	Cable carrier (for 160" length)	1	SQ301-II-R100-3700L(No.5)
27		Hex. socket screw	4	M5XP0.8X12L
28	L-5901-00004	Handle	2	
29		Control box	1	
30		Box	1	
31		Cover	1	
32		Box	1	
33		Cover	1	
34		Cover	1	
35		Bracket	1	
36		Rod guide way (for 40" length)	1	LMC-C20-2800L
		Rod guide way (for 60" length)	1	LMC-C20-3300L
		Rod guide way (for 80" length)	2	LMC-C20-1990L
		Rod guide way (for 120" length)	2	LMC-C20-2490L
		Rod guide way (for 160" length)	2	LMC-C20-2990L
37		Limit switch	2 set	

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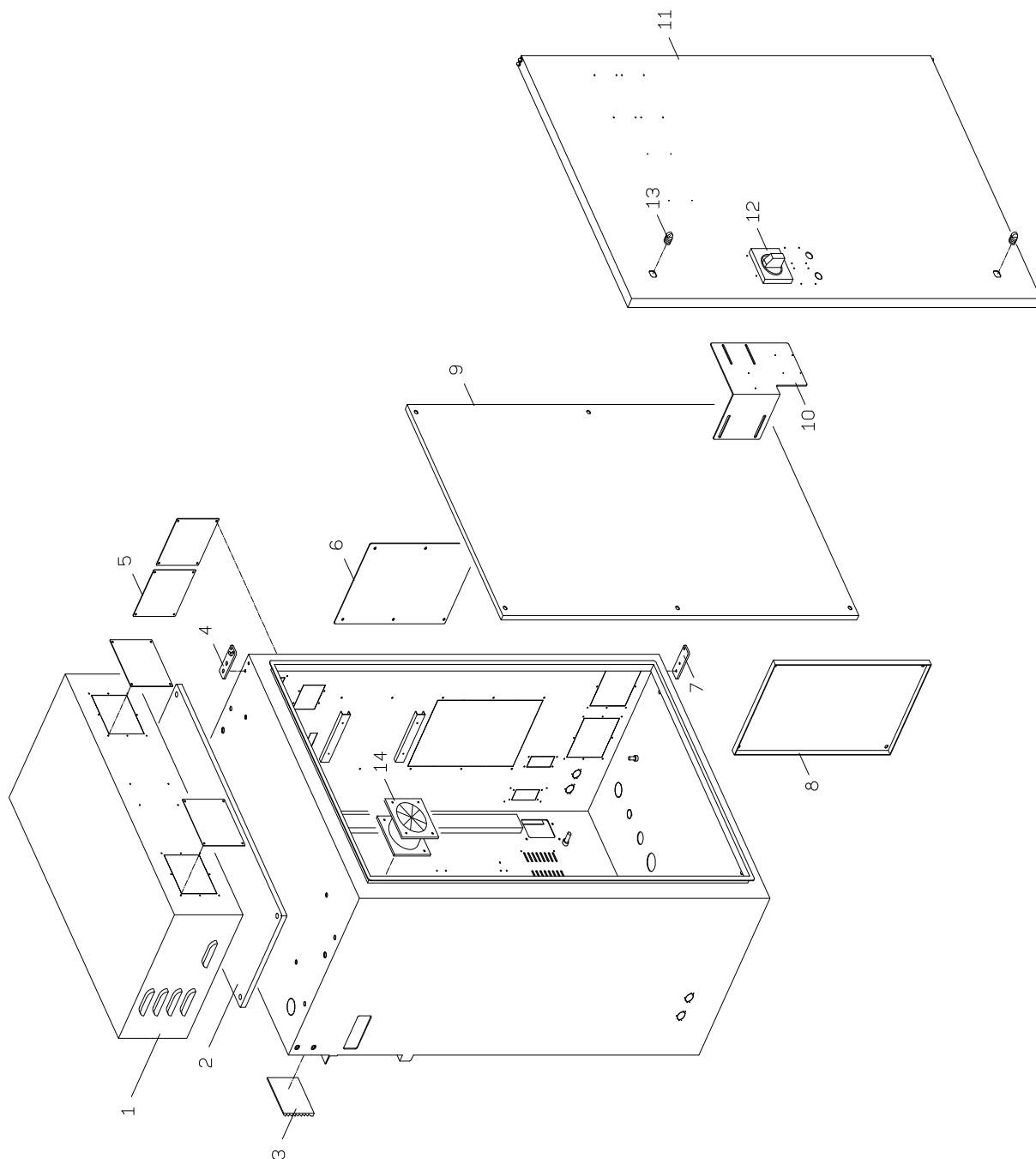
17. Guarding – (For Rear Chuck, Full Guard)



Guarding (Rear Chuck, Full Guard)

Item	Part no.	Description	Q'ty	Remark
1		Plate	1	
2		Side door cover	1	
3		Side guard	1	
4		Plate	1	
5		Left guard	1	
6		Fixing bracket	1	
7		Door hinge	2 set	

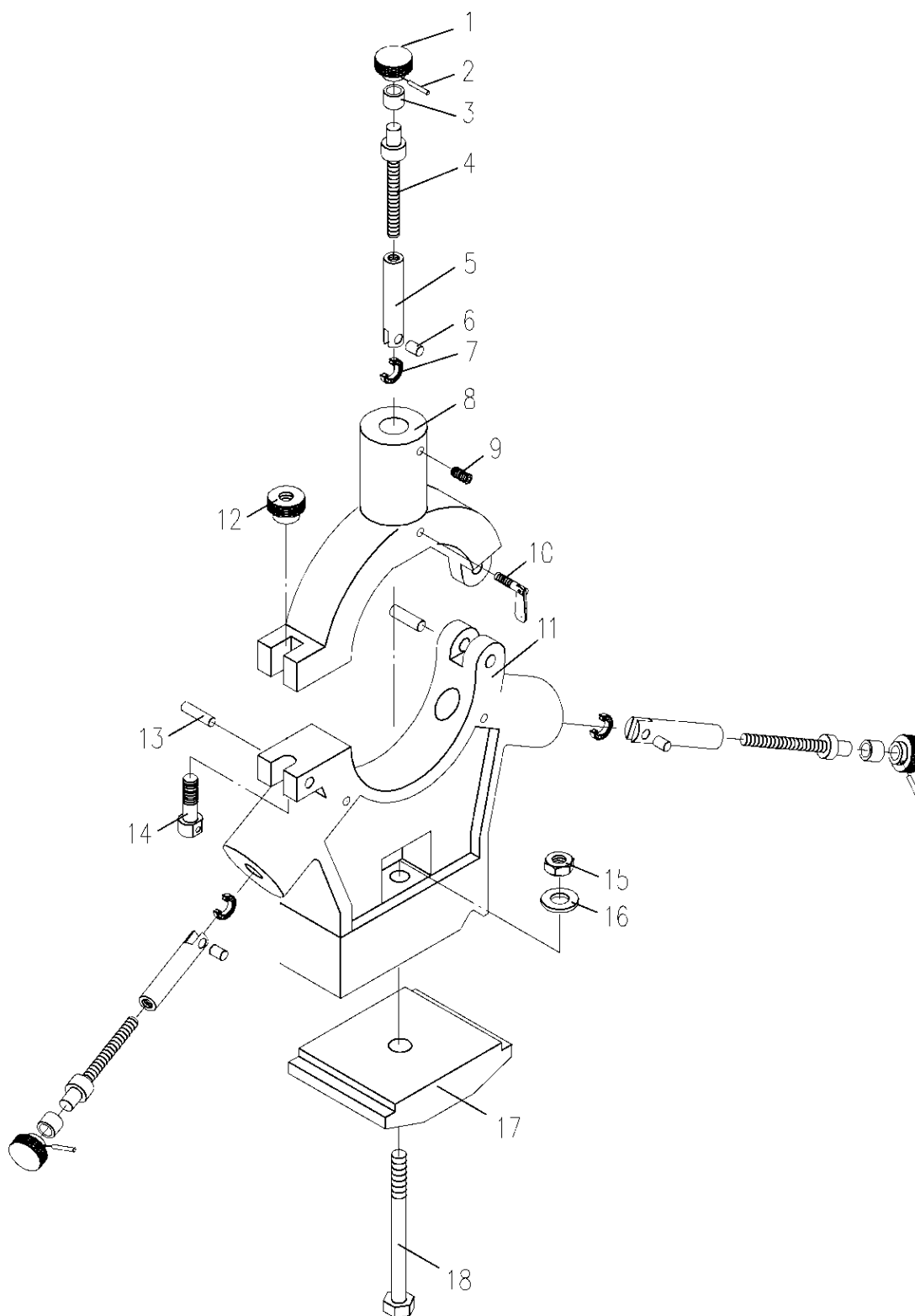
18. Guarding (Electrical Box)



Guarding (Electrical Box)

Item	Part no.	Description	Q'ty	Remark	Milltronics #
1	E-ARAK-73022-01	Brake resistor cover	1		MM00083
2		Electrical panel	1		
3		Fan cover	2		
4		Plate	1		
5		Cover	6		
6		Cover	1		
7		Plate	1		
8	E-ARAK-73225-01	Electrical panel	1		
9		Electrical panel	1		
10		Bracket-main disconnect switch	1		
11		Door	1		
12		Main disconnect switch	1		SW00237
13		Latch	2		MLE0212

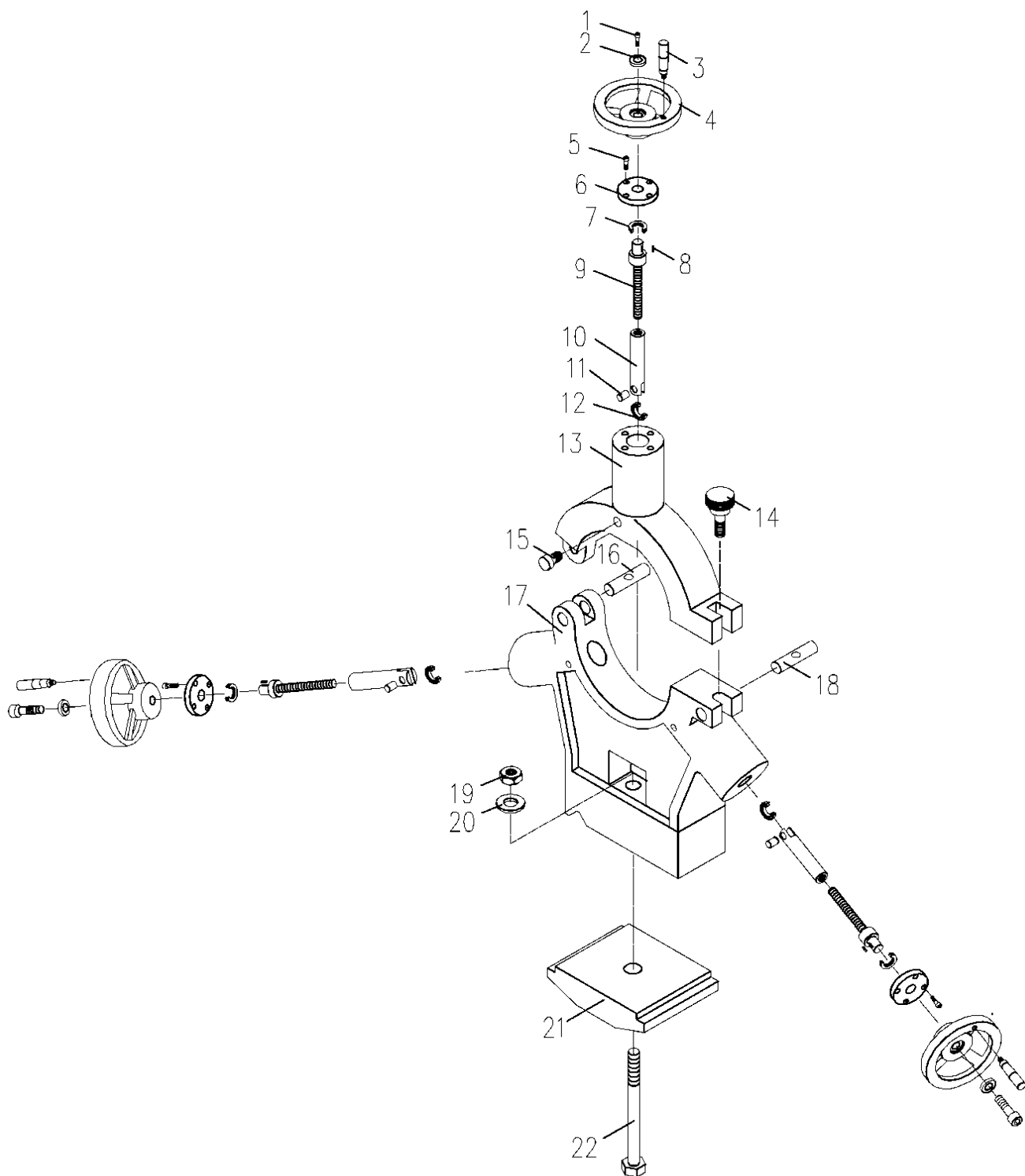
19. Steady Rest .75"-8" (option) 20-200mm



Steady Rest .75"–8" (option), 20-200mm

Item	Part no.	Description	Q'ty	Remark	Milltronics #
1	E-ARAK-85032-01	Plug	3		
2	5105-A00004030	Spring pin	3	Dia. 4 x 30L	
3	E-ARAK-85033-01	Bush	3		
4	E-ARAK-85034-01	Lead screw	3		
5	E-ARAK-85035-02	Shaft	3		
6	E-ARAK-85036-01	Pin	3		
7		Bearing	3	NAST-10x16mm	BG-121
		Bearing		NAST-10x12mm	BG-212
8	E-ARAK-85031-01	Upper body	1		
9	5010-A08125012	Set screw	3	M8XP1.25X12L	
10		Bolt	3	M8XP1.25X40L	
11	E-ARAK-85030-01	Lower body	1	ML-22	
	E-ARAM-85030-01	Lower body	1	ML-26	
12	E-ARAK-85037-01	Nut	1		
13	E-ARAK-85038-01	Pin	2		
14	E-ARAK-85039-01	Bolt	1		
15	5081-B00000020	Nut	1	M20	
16	5071-B00000020	Washer	1	M20	
17	E-ARAK-60029-01	Block clamp	1		
18	5002-B20250205	Hex. Bolt	1	M20XP2.5X205L	MLA-128

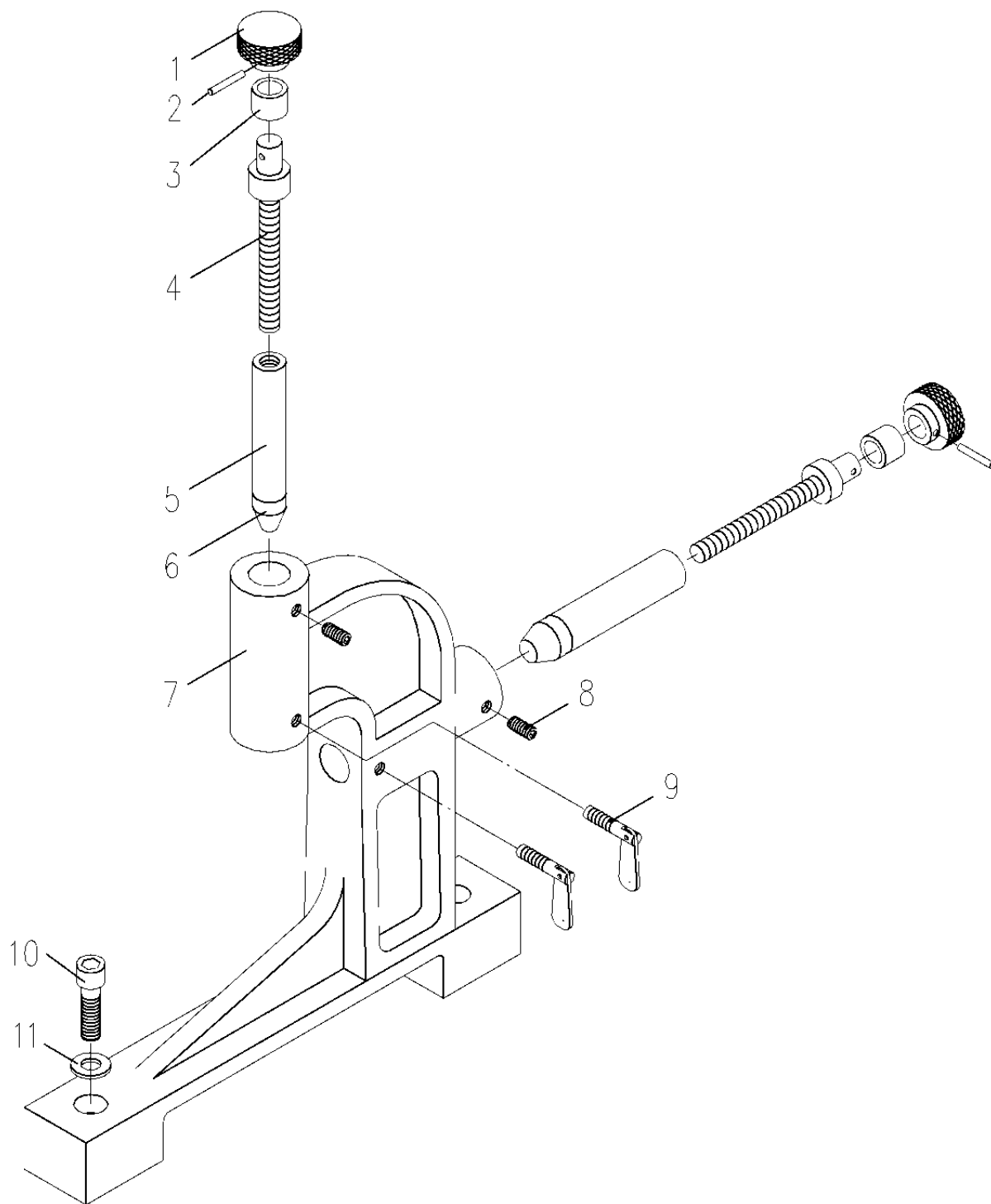
20. Steady Rest 6-12" (option) 150-300mm



Steady Rest 6-12" (optional) 150-300mm

Item	Part no.	Description	Q'ty	Remark	Milltronics #
1	5001-B08125015	Hex. socket screw	3	M8XP1.25X15L	
2	5105-A00004030	Washer	3	M8	
3		Handle	3	M8	
4	E-ARAK-61023-01	Hand wheel	3		
5	5001-A06100025	Hex. socket screw	12	M6XP1.0X25L	
6	E-ARAK-61024-01	Cover	3		
7		Bearing	3	51104	BG-103
8	5121-C05005012	Key	3	5X5X12L	
9	E-ARAK-61025-01	Lead screw	3		
10	E-ARAK-61026-01	Shaft	3		
11	E-ARAK-61027-01	Pin	3		
12	ML22/26	Bearing	3	NAST-17x16mm	BG-124
	ML22 only	Bearing	3	NAST-17ZZx20mm	
	ML26 (180-410)	Bearing	3	NAST-30x20mm	MPL-574
	ML26 (180-410)	Bearing	3	NAST-30ZZx25mm	
13	E-ARAK-61022-01	Upper body	1		
14	E-ARAK-61034-01	Bolt	1		
15		Hex. socket screw	3	M10	
16	E-ARAK-61028-01	Pin	1		
17	E-ARAK-61021-01	Lower body	1		
18	E-ARAK-61029-01	Pin	1		
19	5081-B00000024	Nut	1	M20	
20	5071-B00000024	Washer	1	M20	
21	E-ARAK-60029-01	Block clamp	1		
22	5002-B20250205	Hex. Bolt	1	M20XP2.5X205L	MLA-128
* Items 1-7 available as assembly, MPL-816 for 180-410mm, and MPL-488 for 150-300mm.					

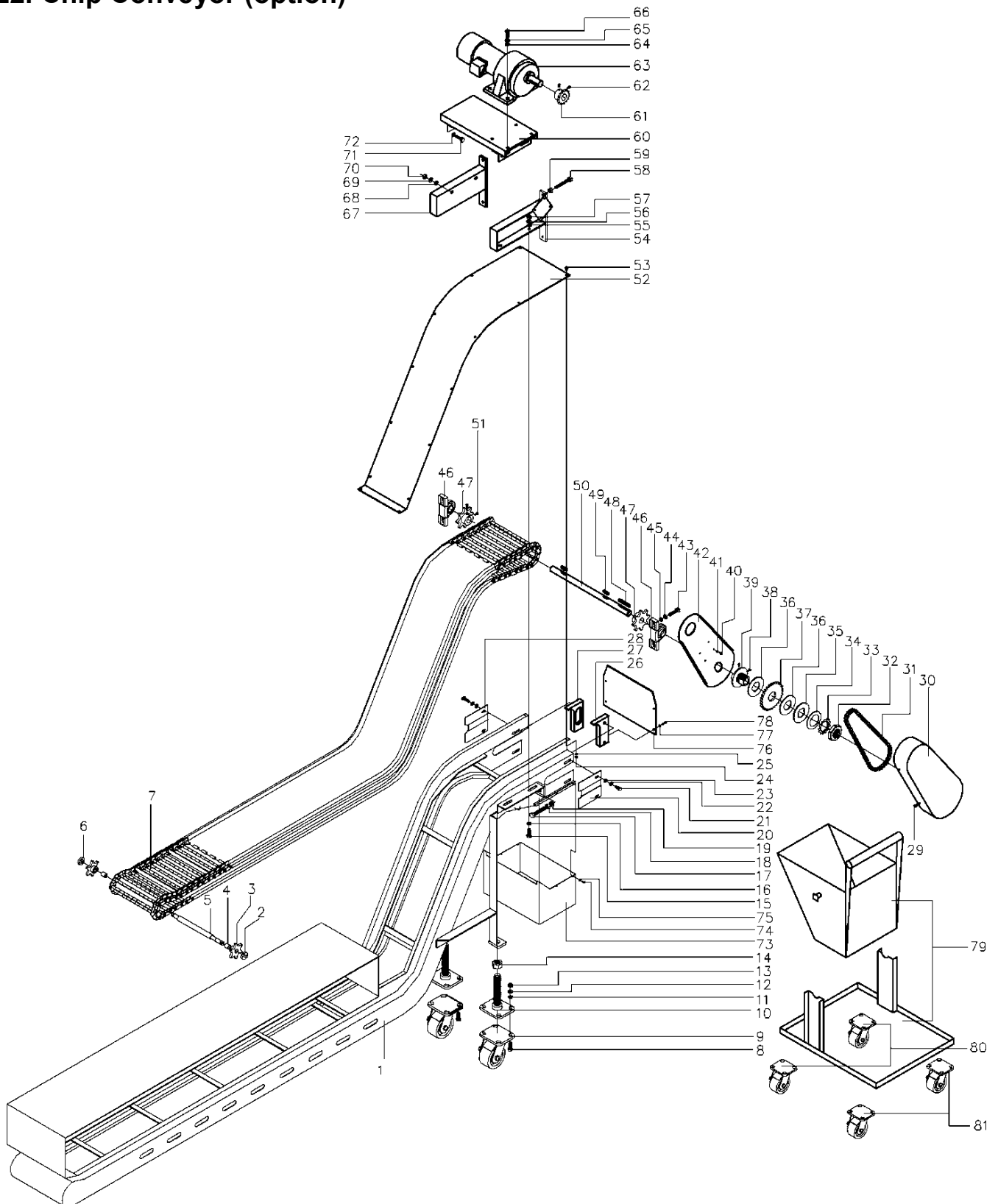
21. Follow Rest (Option)



Follow Rest (Option)

Item	Part no.	Description	Q'ty	Remark	Milltronics #
1	E-ARAK-85032-01	Plug	2		
2	5105-A00004030	Spring pin	2	Dia. 4 x 30L	
3	E-ARAK-85033-01	Bush	2		
4	E-ARAK-85052-01	Lead screw	2		
5	E-ARAK-85053-01	Shaft	2		
6	E-ARAK-85054-01	Bronze jaw	2		MPL-353
7	E-ARAK-85050-01	Follow rest body	1	ML-22	MPL-165 (20-200mm)
	E-ARAM-85050-01	Follow rest body	1	ML-26	
8	5010-A08125012	Hex. Bolt	2	M8 x P1.25x12L	
9		Bolt	2	M8 x P1.25x40L	
10	5001-B12175055	Hex. bolt	2	M12xP1.75x55L	
11	5071-B00000012	Washer	2	M12xP1.75x55L	

22. Chip Conveyor (option)



Chip Conveyor (option)

Item	Part no.	Description	Q'ty	Remark	Milltronics #
1		Frame body	1		
2	PB100152	Ring	1		
3	TA204006015	Spur gear	2		
4	BD101520	Bearing	2	CB1520	
5		Spindle	1	PB100232	
6	PB100151	Ring	1		
7		Hinge belt	1	PB100300	
8	CB10025AA	Hexagon bolt	8	M10 x P1.25 x 25L	
9	CW5140	PU wheel	2	4"	
10	PB100165	Adjust board	2		
11	BU110A	Washer	8	M10	
12	BU210A	Spring washer	8	M10	
13	CM10AA	Nut	8	M10	
14	CM24AA	Nut	2	M24	
15	CB10025AA	Hexagon bolt	4	M10 x P1.25 x 25L	
16	BU110A	Washer	4	M10	
17	CB12080AA	Hexagon bolt	2	M12 x P1.25 x 80L	
18	CM12AA	Washer	2	M12	
19	BU112A	Washer	2	M12	
20	PB200153	Left cover	1		
21	CB08016AA	Hexagon bolt	4	M8 x P1.0 x 16L	
22	BU208A	Spring washer	4	M8	
23	BU108A	Washer	4	M8	
24	CM05AA	Hexagon nut		M5 x P0.8	
25	BU205A	Spring washer		M5	
26	PB100155	Left aluminum base	1		
27	PB100156	Right aluminum base	1		
28	PB100154	Right cover	1		
29	CF0508A	Set screw	4	M5 x P0.8 x 8L	
30	PB100211	Motor cover	1		
31	CN04074A	Transmit chain	1	RS40	
32	PB100255	Nut	1		
33	PB100254	Washer	1		
34	PB100253	Spring washer	1		
35	PB100252	Washer	1		
36	ZV420894204	Brake	2		
37	TA50130042	Spur gear	1		
38	CC05006AA	Cap screw	2	M5 x P0.8 x 6L	

Item	Part no.	Description	Q'ty	Remark	Milltronics #
39	PB100251	Shaft body	1		
40	CF0508A	Set screw	4	M5 x P0.8 x 8L	
41	B0205A	Spring washer	4	M5	
42	PB100212	Motor cover	1		
43	CC10035AA	Cap screw	2	M10 x P1.25 x 35L	
44	BU110A	Spring washer	2	M10	
45	BU110A	Washer	2	M10	
46	BC01205	Bearing	2	UCP205	
47	TA104008025	Spur gear	2		
48	BK07060C	Flat key	1	7 x 7 x 60L	
49	BK07030C	Flat key	2	7 x 7 x 301	
50		Spindle	1	PB100231	
51	CF0610A	Set screw	2	M6 x P1.0 x 10L	
52		Cover	1		
53	CF0512A	Set screw		M5 x P0.8 x 12L	
54	PB100202	Adjust board	1		
55	BU110A	Washer	2	M10	
56	BU210A	Spring washer	2	M10	
57	CM10AA	Hexagon nut	2	M10	
58	CB10060AF	Hexagon bolt	2	M10 x P1.25 x 60L	
59	CM10AA	Hexagon nut	2	M10	
60		Adjust board	1	PB100201	
61	TA301015028	Spur gear	1		
62	CC06010AA	Cap screw	2	M6 x P1.0 x 10L	
63	EG1H020165S	Motor	1	1/4HP; 165:1	MO-239 – 1/2HP
64	BU110A	Washer	4	M10	
65	BU210A	Spring washer	4	M10	
66	CB10035AA	Hexagon bolt	4	M10 x P1.25 x 35L	
67	PB100203	Adjust board	1		
68	BU110A	Washer	4	M10	
69	BU210A	Spring washer	4	M10	
70	CM10AA	Hexagon nut	4	M10	
71	CB10025A	Hexagon bolt	4	M10 x P1.25 x 25L	
72	BU110A	Washer	4	M10	
73		Hopper	1	PB100172	
74	CF0508A	Set screw	4	M5 x P0.8 x 8L	
75	BU205A	Spring washer	4	M5	
76		Cover	1	PB100163	
77	BU205A	Spring washer	4	M5	
78	CF0508A	Set screw	4	M5 x P0.8 x 8L	

23. Waylube Pump MA00458

The on time and off time can be adjusted using MISC control parameters “Way Lube ON time (sec)”, and “Way Lube OFF time (min)”.

Oiler Comparison

	Old style	New style
Model #	CESD	CEN01
Part #	MA00219	MA00458
Timer function ON/OFF	Built-in controls	Via CNC #66
Audible alarm	YES	NO
Oil pressure gauge	NO	YES
Manual override button	YES	YES

Software & control

All 8200 versions have the functionality. 7200 version 77401 or higher is required to have the functionality.

The oiler timer is functional only when the “Grease Cycle Time” parameter is set to Zero, and the Way Lube ON and OFF time parameters are non-zero.

Pictures of MA00458

